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Entry Doors - Therma Tru

THERMA[]TRU®

MAUMEE, OHIO 1-800-537-8827

3.1 Door System Maintenance

All Therma-Tru door systems and associated components should be inspected and checked at least once a year for the following conditions: fading of door finishes, weatherstrip seal inadequacies, door bottom gasket or sill gasket wear, and vinyl threshold or oak riser splitting or cracking. Upon inspection if any of these components fail to function, they should be repaired or replaced as

- Door Finishes

Clearcoats and Stains

All exterior finishes are affected by exposure and weathering from the sun, moisture and air pollutants. A simple application of a maintenance coat of topcoat will renew the protection over the stained surface. Use a clear topcoat for Classic-Craft and Fiber-Classic door slabs and Eight-Foot Door Finishing Topcoat for eight-foot door slabs. Reapply the topcoat approximately every two years or when gloss fades. Fading will vary.

HINT: Topcoat the skin sample you stained previously and save in a cool, dry place away from the sun. Compare this sample to the door periodically. When compared to the sample. If the door seems rough or has lost its gloss, you need to re-topcoat your door.

Paint on Classic-Craft or Fiber-Classic Doors

For fading, cracking, splitting, etc., of painted Classic-Craft or Fiber-Classic doors, stripping and refinishing may be required. Refer to SITE 3.2 for proper instructions on stripping and refinishing

Paint on Steel Doors

For cracking, splitting or deteriorating paint finishes on steel doors, lightly sand surface of door and touch up to match overall finish.

Special Note for Outswing Door Systems

Swing-out doors must have all edges - sides, top and bottom - finished. Inspect and maintain these edges regularly as all other surfaces.

Refer to SITE 2 Finishing Instructions of the Product Manual for more details.

- Weatherstripping

If the weatherstripping fails to perform (i.e., not sealing the door system properly, cracking, tearing, etc.) the weatherstrip needs to be replaced. Remove the existing weatherstripping and replace. Refer to SITE 5.4 Weatherstrip Replacement for proper installation of replacement

- Door Bottom and Sill Gaskets

If the door bottom gasket fails to perform (i.e., splitting, cracking, pulling away from door slab, etc.), the door bottom needs to be replaced with a new door bottom. See SHOP 3.13 for proper

If the sill gaskets on outswing sills fails to perform (i.e., splitting, cracking, etc.), the sill gasket needs to be replaced. Pull the existing gasket and replace the gasketing for proper functioning of the sill. Refer to COMP 13.2 Sills for proper replacement part to order.

- Oak Risers for Adjustable Sills

If the oak riser for an adjustable sill fails to perform (i.e., splitting, cracking, etc.), the oak riser needs to be replaced. Remove the existing riser and replace. Refer to SITE 5.6 for proper oak riser selection and replacement installation.

Vinyl Thresholds

If the vinyl threshold fails to perform (i.e., splitting, cracking, etc.), the vinyl threshold needs to be replaced. Remove the existing threshold and replace. Refer to SITE 5.7 for proper vinyl threshold selection and replacement installation.

3.1 Door System Maintenance

- Corner Seal Pads

If corner seal pads are torn or missing, replace corner seal pads. Refer to SHOP 4.7 for self-adjusting sills and to SITE 1.1 for adjustable sills.

- Sealing/Resealing Areas

If a caulk seal fails to perform (i.e. water leakage), remove existing seal and reseal area. Refer to Product Manual table of contents for specific door type and sealing condition.



MAUMEE, OHIO 1-800-537-8827

3.2 Stripping and Refinishing Instructions

Classic-Craft[®] and Fiber-Classic[®] Door Slabs

STRIPPING TO RE-FINISH

Liberally apply stripper to a small section of the door surface using a circular motion.
 Remove finish from the lite frames first.

DO NOT leave stripper on lite frames for any extended amount of time.

DO NOT use stripper pads because they scratch the door face.

DO NOT use sandpaper on door faces.

NOTE: For best results, use brass wire brushes or nylon bristle brushes. Therma-Tru recommends the following stripper brands: 3-M Safest Stripper, as well as methylene chloride-based strippers such as Dad's Easy Spray, Bix Stripper, Bix Tough or Savogran Super Strip.

- 2. After stain has been removed, scrub the door with mineral spirits and wipe clean.
- 3. Allow door to dry completely (5-10 minutes).
- 4. Refinish as desired according to the recommended finishing procedures in SITE 2.1.

Eight-Foot Door Slabs

STRIPPING TO RE-FINISH

- 1. Follow the manufacturer's directions and cautions for use of stripping compounds.
- 2. Remove finish from the lite frames first. Apply stripper to small areas at a time using a circular motion.

DO NOT leave stripper on lite frames for more than three minutes. A primer is applied to the lite frames which may be rubbed off if scrubbed too hard. If this happens, contact your local dealer for a light oak touch-up primer.

- 3. Rinse thoroughly before moving to the main part of the door.
- 4. Liberally apply stripper to the door surface using a circular motion and working on small areas at a time.

NOTE: For best results, use methylene chloride based strippers. We recommend Dad's, Bix Stripper, Bix Tough, Savogran Super Strip, or you can use 3-M Safest Stripper.

- After stain has been removed, clean the door with an all-purpose cleaning solution and rinse thoroughly.
- 6. Allow door to dry completely (2 hours).
- 7. Refinish as desired according to the recommended finishing procedures in SITE 2.2

DO NOT use sand paper on door faces.

3M is a registered trademark of Minnesota Mining and Manufacturing Co., Dad's and Dad's Easy Spray are trademarks of Sansher Corp., Bix is a registered trademark of Bix Manufacturing Co., Savogran and Super Strip are registered trademarks of the Savogran Co., Zar is a registered trademark of United Gilsonite Laboratories.



4.1 Air and/or Light Leak at Top or Bottom of Jamb

PROBLEM: Air and/or light leak at top or bottom of jamb.

| Cause | Solution | Refer to |
|---|---|---|
| Weatherstrip magnet broken off top or bottom. | Replace weatherstrip. | Site 5.4 - Weatherstrip Replacement |
| Weatherstrip magnet or bellows painted. | | · |
| Weatherstrip magnet torn or damaged. | | |
| Bottom corner seal pads missing or removed. | Replace pads. | SHOP 4.7 (p. 24-26) Frame Assembly for Self-Adjusting Sills |
| | | SITE 1.1 (p. 7) - Pre-hung Unit Installation for Adjustable Sills |
| Door loose in frame, with excessive in-and-out movement when latched. | Adjust strike plate for tighter fit. | SITE 1.1 (p. 6) - pre-hung Unit Installation |
| Door not meeting weatherstrip evenly when it closes, hitting the top or bottom first. | Realign, reshim, readjust and renail lockside jamb so door meets weathestrip evenly from top to bottom. | SITE 1.1 (p. 5) - Pre-hung Unit Installation |
| | | |

4.2 Water Leakage Around or Under Sill



PROBLEM: Water leakage around or under sill.

| Cause | Solution | Refer to |
|--|---|---|
| Door not meeting weatherstrip evenly when it closes, hitting the top or bottom first. | Realign, reshim, readjust and renail lockside jamb so door meets weatherstrip evenly from top to bottom. | SITE 1.1 (p.5) - Pre-hung Unit Installation |
| Damaged or painted weatherstrip. | Replace weatherstrip. | SITE 5.4 - Weatherstrip Replacement |
| Improper/insufficient sealant and/or sealant breakdown between sill and subfloor. | Reseal under sill. | SITE 1.1 (p. 3) - Pre-hung Unit Installation |
| Broken seal where the sill meets the jamb. | Remove corner seal pad, pull out weatherstrip at bottom, and place a bead of sealant along entire joint where jamb and sill meet. Replace weatherstrip and reapply corner seal pad. | |
| Sill humped or depressed beyond range of door bottom's sealing capacity. | Anchor sill to draw down straight by drilling pilot holes and securing with glavanized screws. | |
| | Replace any wrinkled to torn door bottom. | SITE 1.1 (p. 2-3) - Pre-hung Unit Installation |
| Humped sill. | Shim jamb legs up to allow sill to straighten. Reseal under sill and anchor sill in place. | |
| Damaged sill saddle causing loor bottom bulb seal to bunch up and wrinkle when he unit closes. | Replace the saddle and screw down. | SITE 5.5 - Adjustable Sill Oak Threshold Replacement |



4.2 Water Leakage Around or Under Sill

PROBLEM: Water leakage around or under sill.

| Cause | Solution | Refer to |
|--------------------------------------|---|---|
| Damaged door bottom. | Replace door bottom, sealing first. | SHOP 3.13 (p. 36) - Door Bottom Installation |
| Door sagging out of square in frame. | Make sure LONG hinge screws provided are properly installed in the top hinge through the jamb to the stud. | SITE 1.1 (p, 6) - Pre-hung Unit Installation |
| Jamb out of alignments. | If jamb is twisted along length of the members, straighten it by reshimming to eliminate the twist and maintain an even head margin and renailing. | SITE 1.1 (p. 4-5) - Pre-hung Unit Installation |
| Jamb out of square to door. | Usually caused by plum frame members sitting on unlevel floor/sill area. Free lowest jamb leg and shim it up to level the sill and maintain an even head margin. Shim under sill if necessary. | |

4.3 Water Leakage Around Door/System Perimeters



PROBLEM: Water leakage around door/system perimeters.

| Cause | Solution | Refer to | | |
|---|--|---|--|--|
| Door not meeting weatherstrip evenly when it closes, hitting the top or bottom first. | Realign, reshim, readjust and renail lockside jamb so door meets weatherstrip evenly from top to bottom. | SITE 1.1 (p. 5) - Pre-hung Unit Installation | | |
| Improper/incomplete seal and/or sealant breakdown around or on top of unit. | Properly flash and/or seal around brickmold. | SITE 1.1 (p. 8) - Pre-hung Unit Installation | | |
| Improper/incomplete seal and/or breakdown around fixed unit sidelites where they meet the jamb. | Reseal to restore system integrity. | | | |



4.4 Water Leakage Around Lites

PROBLEM: Water leakage around lites.

| Cause | Solution | Refer to | | |
|---|--|---|--|--|
| Loose lites. | Tighten doorlite screws. | SHOP 3.11 - Door, Panel and Moulding Installation | | |
| | Apply sealing tape around inside perimeter of interior frame if required. | · | | |
| Door face-to-lite frame seal breakdown. | Seal around lite perimeter and/or paint or repaint the perimeter to form a paint seal. | | | |
| Glass-to-lite frame seal breakdown. | Replace doorlite. | SHOP 3.11 - Door, panel and Moulding Installation | | |
| | · | | | |

4.5 Water Leakage Around Fiber-Classic Designline Panels



PROBLEM: Water leakage around Fiber-Classic Designline panels.

| Cause | Solution | Refer to |
|------------------------------------|--|---|
| Loose panels. | Tighten screws. Apply sealing tape around inside perimeter of interior frame if required. | SHOP 3.11 - Doorlite, panel and Moulding Installation |
| Door face-to-panel seal breakdown. | Seal around panel perimeter and/or paint or repaint the perimeter to form a paint seal. | |
| | | |

THERMALTRU®

4.6 Door Will Not Open or Close Properly

PROBLEM: Door will not open or close properly.

| Cause | Solution | Refer to SITE 1.1 (p. 5) - pre-hung Unit Installation | | |
|---|---|--|--|--|
| Door not meeting weatherstrip evenly when it closes, hitting the top or bottom first. | Realign, reshim, readjust and renail lockside jamb so the door meets the weather-stripping evenly from top to bottom. | | | |
| Adjustable strike plate not properly aligned. | Realign adjustable strike plate. | SITE 1.1 (p. 6) - Pre-hung Unit Installation | | |
| Door sagging out of square in frame (uneven head margin). | Make sure LONG hinge screws provided are properly installed in the top hinge through the jamb to the stud. | SITE 1.1 (p. 6) - Pre-hung Unit Installation | | |
| Frame out of square (uneven sill/door bottom margin). | Usually caused by plumb frame members sitting on unlevel floor/sill area. Free lowest jamb leg and shim it up to level the sill and maintain an even head margin. | | | |

THERMA TRU CLASSIC CRAFT OR FIBERCLASSIC EXTERIOR DOORS

All exterior finishes are affected by exposure and weathering from the sun, moisture and air pollutants. Doors should be checked at least once a year for fading of finishes either stain or painted.

Stain finishes with clear coat, a simple application of top coat either by brushing or spraying should protect the stain color. Reapply top coat every two years or when gloss fades.

Painted finishes with a faded surface should be sanded lightly before new coat of paint is applied. Use a oil based paint or a 100% acrylic latex exterior paint may also be used either by brush or spray.

If finishes are peeling or chipped please see manufactures instructions for stripping and refinishing. 3.2

THERMA TRU STEEL EXTERIOR DOORS

All exterior finishes are affected by exposure and weathering from the sun, moisture and air pollutants. Doors should be checked at least once a year for fading of finishes.

Painted finishes with a faded surface should be sanded lightly before new coat of paint is applied. Use a oil based paint or a 100% acrylic latex exterior paint may also be used either by brush or spray.

If finishes are peeling or chipped please see manufactures instructions for stripping and refinishing. 3.2



Standard Warranties

Therma-Tru Corporation provides limited warranties to customers for its several door systems.

Printed warranty copies are provided to distributor customers by Therma-Tru, under the same procedures as used for ordering and delivering product brochures and other sales literature.

Distributor customers provide printed warranties to dealers, jobbers, builders, and homeowners, upon request.

The Limited Warranties are intended for private residential homeowners.

Sample Warranty - Classic-Craft



THE CLASSIC-CRAFT® DOOR SYSTEM LIFETIME LIMITED WARRANTY

FOR AS LONG AS YOU OWN THE DOOR SYSTEM

Therma-Tru Corporation warrants the Classic-Craft entrance system to the original owner against defects in material and workmanship for as long as the original owner owns the door system. The original owner is the private residential homeowner when the door system is first installed, not the distributor, dealer, or contractor. The Classic-Craft entrance door system consists of the door or glass light inserts, wood grilles, hinges, weatherstripping, door bottom gaskeling, comer seals, and the door sill. This warranty is in force only when all the above-named parts are genuine Therma-Tru components.

Provided that installation and maintenance has been performed in accordance with Therma-Tru's published recommendations, if defective material or workmanship becomes evident in the Classic-Craft entrance door system during the warranty period, we will repair or replace, at our option, the defective part or system, or retund the purchase price.

For all types of insulated glass, the warranty covers insulated airspace integrity. If the seal fails, we will repair or replace the unit.

The Classic-Craft Flush-Glazed Door or Sidelite (glass integral with panel and non-removable) is warranted against accidental glass breakage only until the original owner takes possession of the residential property.

We exclude from this warranty any lock mechanisms or closer hardware, or other miscellaneous hardware, or any other door attachments, which we do not manufacture or furnish. We also exclude finishes. We do not warrant jambs or brickmould, or against damage or defects that resulted from improper installation or finishing or maintenance, or from abuse or misuse. We also exclude shipping costs, and costs for installation, repair, reinstallation, or finishing, which may be incurred due to a defective part or system covered by this warranty.

THERE IS NO OTHER EXPRESS WARRANTY, IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO ONE (1) YEAR FROM PURCHASE. THIS IS THE EXCLUSIVE REMEDY, AND LIABILITY FOR INCIDENTAL AND CONSEQUENTIAL DAMAGES UNDER ANY AND ALL WARRANTIES ARE EXCLUDED TO THE EXTENT EXCLUSION IS PERMITTED BY LAW. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, OR THE LIMITATION OR EXCLUSION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLYTO YOU.

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

If you make a warranty claim, we may ask you to provide evidence of original ownership, or proof of purchase. If you need information or assistance, please contact your local Therma-Tru dealer, or contact us at Therma-Tru Corporation, P.O. Box 8780, Maumee, Ohio 43537.

Effective September 1994

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Sample Warranty - Fiber-Classic

THE FIBER-CLASSIC® DOOR SYSTEM LIFETIME LIMITED WARRANTY

FOR AS LONG AS YOU OWN THE DOOR SYSTEM

Therma-Tru Corporation warrants the Fiber-Classic entrance or patio door system to the original owner against defects in material and workmanship for as long as the original owner owns the door system. The original owner is the private residential homeowner when the door system is first installed, not the distributor, dealer, or contractor. The Fiber-Classic entrance or patio door system consists of the door, any panel inserts or glass light inserts, wood grilles, hinges, weatherstripping, door bottom gasketing, corner seals, and the door sill. This warranty is in force only when all the above-named parts are genuine Therma-Tru components. The prefinished clad frames which are part of the flush-glazed Fiber-Classic patio door product, are included as are our patio door screens.

Provided that installation and maintenance has been performed in accordance with Therma-Tru's published recommendations, if defective material or workmanship becomes evident in the Fiber-Classic entrance or patio door system during the warranty period, we will repair or replace, at our option the defective part or system or refund the purchase price.

For all types of insulated glass, the warranty covers insulated airspace integrity. If the seal fails, we will repair or replace the unit.

The Fiber-Classic Flush-Glazed Door is warranted against accidental glass breakage only until the original owner takes possession of the residential property.

We exclude from this warranty any lock mechanisms or closer hardware, or other miscellaneous hardware, or any other door attachments, which we do not manufacture or furnish. We also exclude finishes. We do not warrant jambs or brickmould, or against damage or defects that resulted from improper installation or finishing or maintenance, or from abuse or misuse. We also exclude shipping costs, and costs for installation, repair, reinstallation, or finishing, which may be incurred due to a defective part or system covered by this warranty.

THERE IS NO OTHER EXPRESS WARRANTY, IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO ONE (1) YEAR FROM PURCHASE. THIS IS THE EXCLUSIVE REMEDY, AND LIABILITY FOR INCIDENTAL AND CONSEQUENTIAL DAMAGES UNDER ANY AND ALL WARRANTIES ARE EXCLUDED TO THE EXTENT EXCLUSION IS PERMITTED BY LAW. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, OR THE LIMITATION OR EXCLUSION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THEABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

If you make a warranty claim, we may ask you to provide evidence of original ownership, or proof of purchase. If you need information or assistance, please contact your local Therma-Tru dealer, or contact us at Therma-Tru Corporation, P.O. Box 8780, Maumee, Ohio 43637.

Effective March, 1995



Sample Warranty - Smooth-Star



THE 20-YEAR SMOOTH-STAR DOOR SYSTEM LIMITED WARRANTY

Therma-Tru Corporation warrants the Smooth-Star entrance or patio door system to the original owner against defects in material and workmanship for a period of 20 years, beginning with the date of purchase. The original owner is the private residential homeowner when the door system is first installed, not the distributor, dealer or contractor. The Smooth-Star entrance or patio door system consists of the door, any panel inserts or glass inserts, wood grilles, hinges, weatherstripping, door bottom gasketing, comer seals, patio door screens and the door sill. This warranty is in force only when all the above mentioned parts are genuine Therma-Tru components.

Provided that installation, finishing, and maintenance has been performed in accordance with Therma-Tru's published recommendations, if defective material or workmanship becomes evident in the Smooth-Star entrance or patio door system during the warranty period, we will repair or replace, at our option, the defective part or system, or refund the purchase price.

For all types of insulated glass, the warranty covers insulated airspace integrity. If the seal fails, we will repair or replace the unit.

The Smooth-Star Flush-Glazed door is warranted against accidental glass breakage only until the original owner takes possession of the residential property.

We excluded from this warranty any lock mechanisms or closer hardware, or officer miscellaneous hardware, or any other door attachments, which we do not manufacture or furnish. We also exclude finishes. We do not warrant jambs or brickmould, or against damage or defects that resulted from improper installations or finishing or maintenance, or from abuse or misuse. We also exclude shipping costs, and costs for installation, repair, reinstallation, or finishing, which may be incurred due to a defective part or system covered by this warranty.

THERE IS NO OTHER EXPRESS WARRANTY, IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO ONE (1) YEAR FROM PURCHASE. THIS IS THE EXCLUSIVE REMEDY, AND LIABILITY FOR INCIDENTAL AND CONSEQUENTIAL DAMAGES UNDER ANY AND ALL WARRANTIES ARE EXCLUDED TO THE EXTEND EXCLUSION IS PERMITTED BY LAW. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, OR THE LIMITATION OR EXCLUSION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

If you make a warranty claim, we may ask you to provide evidence of original ownership, or proof of purchase. If you need information or assistance, please contact your local Therma-Tru dealer, or contact us at Therma-Tru Corporation, P.O. Box 8780, Maumee, Ohio 43537.

Effective October, 1998





Sample Warranty - Premium Steel

THE 10-YEAR PREMIUM INSULATED STEEL DOOR SYSTEM LIMITED WARRANTY

Therma-Tru Corporation warrants the Premium Insulated steel entrance or patio door system to the original owner against defects in material and workmanship for a period often years, beginning with the day of purchase. The original owner is the private residential homeowner when the door system is first installed, not the distributor, dealer, or contractor. The Premium Insulated Steel entrance or patio door system consists of the door, any glass light inserts, hinges, weatherstripping, door bottom gasketing, corner seals, and the door sill. This warranty is inforce only when all the above-named parts are genuine Therma-Tru components.

Provided that installation and maintenance has been performed in accordance with Therma-Tru's published recommendations, if defective material or workmanship becomes evident in the Premium Insulated Steel entrance or patio door system during the warranty period, we will repair or replace, at our option the defective part or system or refund the purchase price.

For all types of insulated glass, the warranty covers insulated airspace integrity. If the seal fails during the warranty period, we will replace the glass unit.

Provided that the primed steel facing has been finished in accordance with our recommendations, and maintained, we warrant the steel facing against corrosion for the ten-year period.

We exclude from this warranty any lock mechanisms or closer hardware, or other miscellaneous hardware, or any other door attachments, which we do not manufacture or furnish. We do not warrant jambs or brickmould, or against damage or defects that resulted from improper installation or finishing or maintenance, or from abuse or misuse. We also exclude shipping costs, and costs for installation, repair, reinstallation, or finishing, which may be incurred due to a defective part or system covered by this warranty.

THERE IS NO OTHER EXPRESS WARRANTY, IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO ONE (1) YEAR FROM PURCHASE. THIS IS THE EXCLUSIVE REMEDY, AND LIABILITY FOR INCIDENTAL AND CONSEQUENTIAL DAMAGES UNDER ANY AND ALL WARRANTIES ARE EXCLUDED TO THE EXTENT EXCLUSION IS PERMITTED BY LAW. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LAST, OR THE LIMITATION OR EXCLUSION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TOYOU.

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

If you make a warranty claim, we may ask you to provide proof of purchase in order to determine the dates of the warranty period. In cases where proof of purchase cannot be obtained, the warranty period will have begun on the date of manufacture stamped on the product. If you need information or assistance, please contact your local Therma-Tru dealer, or contact us at Therma-Tru Corporation, P.O. Box 8780, Maumee, Ohio 43537.

Effective March, 1995



Sample Warranty - Construction Series



THE 2-YEAR CONSTRUCTION SERIES STEEL DOOR SYSTEM LIMITED WARRANTY

Therma-Tru Corporation warrants the Construction Series steel entrance or patio door system to the original owner against defects in material and workmanship for a period of 2 years, beginning with the date of purchase. The original owner is the private residential homeowner when the door system is first installed, not the distributor, dealer or contractor. The Construction Series steel entrance or patio door system consists of the door, any glass light inserts, hinges, weatherstripping, door bottom gasketing, comer seals, and the door sill. This warranty is in force only when all the above-named parts are genuine Therma-Tru components.

Provided that installation and maintenance has been performed in accordance with Therma-Tru's published recommendations, if defective material or workmanship becomes evident in the Construction Series steel entrance or patio door system during the warranty period, we will repair or replace, at our option, the defective part or system, or refund the purchase price.

For insulated glass components, the warranty covers insulated airspace integrity, and the time period extends to ten years. If the seal fails during the warranty period, we will replace the glass unit.

Provided that the primed steel facing has been finished in accordance with our recommendations, and maintained, we warrant the steel facing against corrosion for the two-year period.

We exclude from this warranty any lock mechanisms or closer hardware, or other miscellaneous hardware, or any other door attachments, which we do not manufacture or furnish. We also exclude finishes. We do not warrant jambs or brickmould, or against damage or defects that resulted from improper installation or finishing or maintenance, or from abuse or misuse. We also exclude shipping costs, and costs for installation, repair, reinstallation, or finishing, which may be incurred due to a defective part or system covered by this warranty.

THERE IS NO OTHER EXPRESS WARRANTY, IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO ONE (1) YEAR FROM PURCHASE. THIS IS THE EXCLUSIVE REMEDY, AND LIABILITY FOR INCIDENTAL AND CONSEQUENTIAL DAMAGES LINDER ANY AND ALL WARRANTIES ARE EXCLUDED TO THE EXTEND EXCLUSION IS PERMITTED BY LAW. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, OR THE LIMITATION OR EXCLUSION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE

If you make a warranty claim, we may ask you to provide evidence of original ownership, or proof of purchase. If you need information or assistance, please contact your local Therma-Tru dealer, or contact us at Therma-Tru Corporation, P.O. Box 8780, Maumee, Ohio 43537.

Effective October, 1998



GENERAL SPECIFICATIONS

Therma-Tru Exterior Doors

All doors shall be manufactured by Therma-Tru corp. The panels shall be laminated, using a high-performance adhesive to thermally broken, trimmable stiles and rails forming a perimeter to reduce thermal transmission and allow for field preparation of hardware. The bottom edge shall be manufactured from a moisture-resistant and decayresistant composite. The core shall be foamed-inplace, CFC-free polyurethane with a density of 2.0 pcf minimum, k-factor of 0.14 BTU hr-1 ft-2 which shall completely fill the cavity and bond the stiles, rails, faces iglass in Classic-Craft flush-glazed sidelites, and Fiber-Classic and Smooth-Star flushglazed doors and sidelites) into a unitized panel. Doors mortised to accept Therma-Tru 4" x 4" hinges. The doors shall be supplied in 2/8 (32") or 3/0 (36') widths and a nominal height of 6/8 (79 1/4"). Some styles are available in 2/0 (24"), 2/6 (30"), 2/10 (34") and 3/6 (42") widths and 6/6, 7/0, and 8/0 heights.

Independent Laboratory Performance Testing

All Therma-Tru exterior door systems have been tested for structural load, air infiltration and water penetration resistance. Structural load Design Pressures range from DP40 to DP90 and water penetration resistance meets 2.86lbf/ft2 and above (Florida Method PA202). All Therma-Tru solid panel steel doors are impact Rated (Florida Method PA201). All products meet AAMA/WDMA 101/L.5.2-97; ASTM E-330, ASTM E-547, ASTM E-283, E-842; and conform to HUD UM89, AAMA 1702.2-85 under Federal Manufactured Housing Specification 3280.405.

Classic-Craft® Exterior Doors

Panel face shall be manufactured from a proprietary thermoset composite, wood-grained to duplicate a handcrafted red oak master and can be stained or painted. Door edges shall be machinable klin-dried clear northern red oak, flush and square with door faces. The lock side shall be reinforced with a wide engineered lumber stile that runs the length of the door. The door shall be trimmable in width up to \$1/4\$* and in length by \$1/2\$*. Trimming shall be performed in accordance with manufacturer's instructions. (Model CC30750 oval door panel design \$1996).

Fiber-Classic® Exterior Doors

Panel face shall be manufactured from a fiberglassreinforced thermoset composite compound, woodgrained in red oak and can be stained or painted. A 23½ wide wood lockblock shall be incorporated to provide structural integrity. The door shall be trimmable in width up to ½ and in length by ¾. Trimming shall be performed in accordance with manufacturer's instructions.

Smooth Star® Exterior Doors

Panel face shall be manufactured from a fiberglassreinforced thermoset composite compound that must be painted. A 23½ wide wood lockblock shall be incorporated to provide structural integrity. The door shall be field trimmable in width up to 1½ and in length by 1½. Trimming shall be performed in strict accordance with manufacturer's instructions. (Model \$\$30060 texture and panel design \$1998).

Premium Steel Entry Doors

Both sides of each panel shall be 24-gauge galvanized steel. The door edges shall be machinable kiln-dried white pine and provide full thermal break. A wood lockblock shall be incorporated to provide support for secure mounting of hardware. Doors shall be primed.

Construction Series Doors

Both sides of each panel shall be 25-gauge galvanized steel. The door edges shall be machinable kiln-dried white pine and provide full thermal break. All door surfaces are factory primed in grey to accept exterior paint.

Doorlites

Doorlites are insulated and exposed panes are tempered for safety and security. Single paned glass is available in a select group of clear doorlites. Optional wood grilles available for clear doorlites and transoms.

Inserts – All glass (except flush-glazed styles) shall be bedded with glazing mastic and secured in doors with screws. Therma-Tru's SMC, TCM and BTS doorlite frames are available for most styles except where noted. SMC, TCM and BTS frames shall resist significant deformation by heat up to 200°F regardless of paint or stain color or placement behind a storm door.

PVC doorlite frames require a finish within 30 days of installation. Failure to do so will void the warranty. DO NOT finish PVC doorlite frames a dark color or install behind a storm door.

Flush-Glazed – The glass in flush-glazed styles shall be molded in place by a proprietary process that bonds the glass, door panels and core into one integral panel.

Transoms

Transom frames and brickmould available to match door frames in primed pine or clear northern red oak. All transoms are $13\frac{1}{2}$ ° in height.

Components

Adjustable Security Strike Plate – Proprietary adjustable type, permitting in-out adjustment of door in frame, up to $^3/6^{\circ}$.

Hinges - Minimum hinge size 4" x 4" x .096".

Weatherstripping – Jacketed urethane weatherstrip, in proprietary design, kerf-fit to frame stops, door bottom gasket with proprietary sill-interface feature, and right and left side corner seal pads. For steel doors, magnetic weatherstrip is available.

Sills - Wide range of sill options: thermally broken fixed, adjustable with oak or high performance threshold, and public access. Selected styles have milled aluminum, anodized bronze and anodized brass finishes. High performance sills feature stainless steel adjustment mechanisms to resist corrosion.

Pire Rating Performance Standards

Fire and building codes vary throughout the country and acceptance of products and labels is left to the discretion of the local authorities. Consult NFPA-80 for further information on labeling, testing procedures and standards and their meaning.

MODIFICATION OF PRODUCTS DESCRIBED IN THIS BROCHURE WHICH CARRY FIRE RATINGS (DOORS AND FRAMES) MAY VOID THE FIRE RATINGS. DOUBLE FIRE DOORS ARE NOT FIRE-RATED.

**Test conducted by Warnock-Hersey International Laboratories.

Finishing and Painting

Classic-Craft and Fiber-Classic door systems should be stained using a Therma-Tru Finishing System.

If painting, we recommend the use of a primer and acrylic latex paint (exterior grade on outside).

Smooth-Star, Premium Steel and Construction Series door systems should also be painted using acrylic latex paint (exterior grade on the outside). No primer is needed on Smooth-Star fiberglass doors or steel doors.

DO NOT apply Therma-Tru topcoat directly to an unfinished fiberglass door.

DO NOT use automotive paint.

Maintenance

inspect finished surfaces periodically, as well as sealants and gasketing. All may be affected by exposure to sun, moisture and environmental conditions. Recoat stained surfaces with clear coat, or repaint painted surfaces when they appear dull or rough. Be sure to check expiration dates on containers.

Installation, finishing and maintenance must be performed in accordance with Therma-Tru's recommendations to comply with warranty requirements. Complete instructions for finishing, painting and maintenance are supplied with units and with the Therma-Tru Finishing System.

Please Note: Due to ongoing product development, Therma-Tru Corp reserves the right to make changes in design, materials and specifications without notice.

^{*}For best performance, double doors to be used in areas with severe weather exposure must be installed using entry alcoves or large soffit overhangs to protect entry unit from exposure.

Interior Doors (including wardrobe doors) - Masonite Specifications

MASONITE WOOD PANEL DOORS

| 2-Panel | 2-Panel | 3-Panel | 3-Panel | 4-Panel | 4-Panel | 5-Panel | 5-Panel | 6-Panel |
|-------------|---------|---------|---------|---------|---------|---------|---------|---------|
| Square | Eyebrow | Square | Eyebrow | Square | Eyebrow | Square | Eyetrow | Square |
| | | | | | | | | |

| | Square | c you on | 2dnase | E yebrow | Square | Eyebrow | Square | Eyebrow | Square |
|---------------------------|---------|----------|-----------|----------|--------------|--------------|---------|----------------|---------|
| 6'8", 7'9", 8'0" Heights | | 64 () | V- 67 7 1 | 48915149 | | | | | - Spant |
| Top Rail | 4-7/16" | 4-7/16" | 4-7/16" | 4-7/16" | 4-7/16° | 4-7/16" | 4-7/16° | 4-7/16" | 4-7/16" |
| Cross Rail | _ | _ | 4-1/2" | 4-1/2" | _ | - | 4-1/2" | 4-1/2" | 4-1/2" |
| Lock Rail | 7-3/8* | 7-3/8" | _ | _ | 7-3/8* | 7-3/8" | _ | - , | 7-3/8" |
| Bottom Rail | 8-5/16" | 8-5/16" | 8-5/16* | 8-5/16* | 8-5/16* | 8-5/16" | 8-5/16" | 8-5/16" | 8-5/16" |
| Stiles: Passage 1'0"-1'4" | 3-9/16" | 3-9/16" | 3-9/16" | 3-9/16" | - | | _ | _ | - |
| Stiles: Passage 1'6"-3'0" | 4-9/16" | 4-9/16" | 4-9/16" | 4-9/16" | 4-9/16" | 4-9/16" | 4-9/16* | 4-9/16° | 4-9/16* |
| Stiles: Bifold | 2-5/16* | 2-5/16" | 2-5/16* | 2-5/16 | 2-5/16" | 2-5/16" | 2-5/16* | 2-5/16* | 2-5/16* |
| Panel | 3/4" SH | 3/4" SH | 3/4" SH | 3/4" SH | 3/4" SH | 3/4° SH | 3/4" SH | 3/4" SH | 3/4" SH |
| Sticking | Ovolo | Ovolo | Ovolo | Ovolo | Ovolo | Ovalo | Ovolo | Ovolo | Ovalo |

SH = Single-hip raised panel

Note: Stile and rail dimensions include sticking.

ptions

Cherry, Clear Pine, Fir, Hemlock, Knotty Pine, Maple, Oak, Poplar and Primed

Sticking:

Shaker style available in all designs

Panels:

5/16" Flat panel

3/4" Double-hip raised panel (4, 5, 6-panel Oak, Cherry, Maple only)

Sizes

Thickness: 1-3/8" (for 1-3/4" doors consult your Masonite Dealer)

Bifold Door Widths: 2'0", 2'6", 3'0"

Door Heights: 6'8", 7'0", 8'0"

Passage Door Widths:

2, 3 and 6-panel: from 1'0", 1'2", 1'3", 1'4", 1'6", 1'8", 1'10" Note: 1'0" - 1'10" 4-panel, 5-panel and 6-panel doors are one panel wide (2 or 3 panel)

4 and 5-panel: from 2'0", 2'2", 2'4", 2'6", 2'8", 2'10", 3'0"

Warranty

Masonite interior doors are manufactured in controlled conditions using only top-quality products. The doors are warranted for one year against any defects which would prevent normal utilization. The doors must be carefully cared for and the guarantee will only be valid if the 'Door Care' conditions are met. Other warranty terms and conditions may apply. Please contact Masonite to obtain a copy of the limited warranty.

Door Care

Doors must be stored flat and fully protected against humidity. When doors are moved, they must be lifted, eliminating any sliding of one door on another.

In order not to change the door's belence, a maximum of 1/2" may be removed on its width (1/4" on each side). Any modification to the door's height must not exceed 1" and

• When the door is hung, a good quality sealant must be applied immediately to minimize humidity absorption. Special attention must be given to finish all six sides of the door. including the top and bottom of the door. Doors must be finished on all sides to have a valid warranty.



LIMITED 1 YEAR WARRANTY

Molded Panel, Grown's MDF, Flush, Wood Panel, Marnith and Wood French Series Interior Doors













Subject to the limitations and conditions set forth below, Masonite warrants that the door and Masonite's fectory-installed glass insens will be free of manufacturing defects in material and workmanuful for a period of one (1) year from the date of the door's original installation. Masonite grants this warranty only to the original purchaser of the building where the door was installed. THES WARRANTY IS NOT TRANSFERABLE.

The warranty excludes any defects in the coatings on the door and accessories. Also excluded from the warranty are defects resulting from (1) exposure to acid, chamicals or furner; (2) improper use; (3) improper installiation; (4) improper insintenence; (5) water-related damage; or (6) a failure to follow any applicable installiation, core or maintenance tradrictions.

THES WARRANTY IS IN LIBU OF ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, INCLIDING IMPLIED WARRANTIES OF PYTHERS FOR A PARTICULAR PURPOSE AND MERCHANTABILITY. MOREOVER, IN NO EVENT WILL MASONITE BE LIABLE POR SPECIAL, ENCIDENTAL OR COMSEQUENTIAL DAMAGES. This werranty gives you specific legal rights. Other rights very from state to state and may apply to you. Some states and federal laws do not allow the exclusion of limited werranties. In the event these lows apply, then the length of any smyled werranty shall be one (1) year or the storage limits in excess of one year permitted under applicable law. Similarly, some states do not allow the exclusion or smilled on of consequential demages and, if applicable, this limitation will not apply.

If a defect occurs, Masonite, at its sole option, will furnish a replacement door, repair the door or refund the output purchase price. PARSONITE'S MAKENION LIASELITY IS LIMITED TO THE AMOUNT OF THE OPERIMAL PURCHASE PRICE. PARSONITE WILL NOT PAY THE COSTS OF LABOR, INSTALLATION OR FIREBURING FOR ANY REPLACEMENT DOOR. The representative of reasoning or any editor person has any authority whichever to measure for Masonite any other heability connection with the door wantened hereb. COSTS OF LABOR, DESCRIPTION OF SATURDAY

If you have a warranty claim, please notify your Mesonite Dealer. Include with the notice the following information:

- description of door;
- name and address of owner and installer;
 proof of sale; and
 detailed explanation of defect.

Mesonite may defer replacing any warped door for a period of up to 12 months from the data of the original installation in order to allow the door time to equalize to humidity and temperature.

Masonite. The Beautiful Door. TM

Pom ###10051 00/03

Door Hardware - Emtek

LIMITED

WARRANTY

E M T E K

Subject to the terms and conditions of this warranty, Emtek Products, Inc. guarantees that all products with the PVD Lifetime Finish from Emtek Products shall be free from tamishing and discoloration as long as the original consumer purchaser owns the product.

Exclusions From This Warranty

Small surface indentations or imperfections may be found in any crafted brass part, and may not disqualify a product under this warranty. Emtek Products retains the discretion to make all final decisions concerning quality for the purposes of this warranty.

Damage due to improper installation, modification of the product, abuse, or improper maintanance is not covered by this warranty.

Remedies

When a claim made under this warranty is deemed by Emtek Products to be valid, Emtek Products will, at its sole option, either repair or replace the defective product, or refund the original purchase price of the product. Emtek Products shall not be obligated or liable for labor or other costs related to installation, repair or replacement or for less of, or damage to, any material which is not sold by Emtek Products.

Claims

Claims must be made by sending the product to Emtek Products, Inc. at the address listed below, accompanied by a proof of purchase, a written description of the problem, and the model and control numbers shown below.

Limitation of Liabilities

Except as expressly provided in this warranty to the contrary, EMTEK PRODUCTS MAKES NO, AND DISTLAIMS ALL, WARRANTIES, REPRESENTATIONS AND GUATANTEES (WHETHER EXPRESS, IMP JED OR STATUTORY), INCLUDING, BUT NOT LIMITED TO, ANY WHILED WARRANTY OF METCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

CLEANING INSTRUCTIONS

Products with the Eternity Finish from Emtek Products should be cleaned with a damp, soft cloth. Use a mild soap to remove any grease or dirt. Never use abrasive polishes or cleansers, or solvent based cleaning products.

Product Model Number:

Production Control Number:

Emtek Products, Inc. 15250 E. Stafford St., City of Industry, CA 91744

LIMITED WARRANTY

Emtek Products, Inc. (the "Company") warrants to the original purchaser that, except for products with Rust Finish, the products manufactured by it (the "Products") are free of defects in material and workmanship, provided:

1. the Company has been notified within five years of purchase date and been given the opportunity of inspection by return of any alleged defective Products to the Company, free and clear of all liens and encumbrances, transportation prepaid, accompanied by a statement of defects and proof of purchase; and

2. the Product has not been modified, abused, misused or improperly installed, maintained and/or repaired during such period; and

There is no warranty on Rust, Dark Bronze, Light Bronze, Medium Bronze and Silver Patina finishes.

The Company shall, at its option, either repair or replace, free of charge, any Products or part thereof found upon the Company's inspection, to be so defective, or, at the Company's sole discretion refund the purchase price, less a reasonable allowance for depreciation, in exchange for the Product.

The Company makes no other warranty, and all implied warranties including any warranty of merchantability or fitness for a particular purpose are limited to the duration of the expressed warranty period as set forth above.

The Company's maximum liability hereunder is limited to the purchase price of the product. In no event shall the Company be liable for any consequential, indirect, incidental or special damages of any nature arising from the sale or use of the product, whether in contract, tort, strict liability or otherwise.

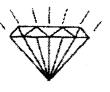
Notes:

- a. Some states do not allow limitations on incidental consequential damages or how long an implied warranty lasts so that the above limitations may not fully apply.
- b. This warranty gives specific legal rights and a buyer may also have other rights which may vary from state to state.
- c. For warranty service and shipping instructions contact Emtek Products, Inc. at: 15250 E. Stafford Street, City of Industry, CA 91744, (626) 961-0413.

Shower Enclosures, Mirrors & Bath Accessories - Diamond Glass & Mirror



DIAMOND GLASS& MIRROR, INC.
16191 N. 82nd Street
Scottsdale, AZ 85260



480-998-7039 FAX: 480-998-7267 License #ROC092678

PRODUCT WARRANTY

All Bath Accessories, Shower Enclosures, Mirrors, and Sliding Mirror Doors are guaranteed against defects from normal use for a period of two (2) years from the date of installation and will include parts and labor. Products are guaranteed against scratches for a period of ten (10) days from the date of installation. This guarantee does not cover product subjected to misuse, neglect, or accidents.

CARE AND MAINTENANCE

Shower Framework — Although the metal portion of your Shower Enclosure is durable and water resistant, it should be wiped down after every use to avoid mineral build-up and chemical build-up from bathing products. A monthly cleaning with a 1:1 vinegar and distilled water solution should be sufficient to keep your enclosure looking brand new for years. If a stronger cleaning agent is required, be sure to rinse it off thoroughly and do not allow it to set. Many cleaners, including those designed for glass can damage the framework if allowed to remain on the metal for any length of time. Abresive cleaners are never to be used.

Shower Glass — Your Shower Glass is tempered safety glass, manufactured in accordance with federal standards. While it is much stronger than regular glass, it can break if struck with very sharp or hard objects. Often the damage will not be immediate, but will occur at a time of temperature change. It should be wiped down after every use to avoid mineral build-up, and a 1:1 vinegar and distilled water solution can be used for cleaning. If a stronger cleaning agent is required, be sure to rinse the glass thoroughly.

Mirrors — A 1:1 vinegar and distilled water solution can be used for cleaning. If household glass cleaners are used, take care to avoid allowing the cleaner to get behind the J-Metal as de-silvering of the Mirror could occur.

Bath Accessories - Wipe as needed with a soft, damp cloth and dry.

| War | drol | es a | and | Dog | rs |
|-----|------|------|-----|-----|----|
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Cabinets - Oakcraft



PEORIA, ARIZONA

THREE YEAR LIMITED WARRANTY

All products featured in our catalogs, under NORMAL USE, are warranteed to be free from defective material and workmanship. If any parts prove defective, Oak Craft will, at our option, replace or repair said part free of charge. NO labor cost or other consequential damages will be allowed. The warrantee (Dealer or Consumer) must pay removal and installation costs. This warranty applies strictly to those products catalogued and manufactured by Oak Craft, and does not extend to any product used in conjunction, such as countertops, plumbing, or appliances.

Any warranty repair or replacement must be approved by an authorized Oak Craft representative. Oak Craft may, at its option, require defective parts be returned to the factory for validation of defect.

The grain and color variation in real wood is what gives it its natural beauty; differences in color or grain between doors and /or fronts or frames ARE NOT considered defects.

As with all fine wood furniture, our cabinetry will "mellow" with time. The resulting change in hue is a natural aging process of both the finish and the wood, and is not considered a defect.

Direct exposure to sunlight will enhance and accelerate this effect. Even though we utilize UV (ultra violet radiation) inhibitors in our finish to minimize the sunlight's effect, we STRONGLY recommend that adequate window coverings be used to help lessen the impact.

Our experience has shown that some cabinet doors may tend to warp a small amount either during or soon after installation. This is usually caused by picking up moisture as a result of being shipped into another region such as Southern California or Colorado, or because of the moisture inherent in new construction from green concrete, texture, plaster and painting. The house usually dries out in the first heating season, allowing our doors to stabilize. In remodeling, this effect can be minimized by allowing the doors to stand open for a few days while they adjust to their new environment. Please allow all Oak Craft cabinetry at least one full cooling and heating cycle to adjust before contacting your authorized dealer. After this, all doors exceeding 1/4" warpage will be eligible for warranty replacement.

This warranty is in lieu of all other warranties either expressed or implied

AUTHORIZED DEALER

| Purchase Date | ?: |
|---------------|----|
| Oak Craft #: | |



Caring for your Cabinets

Finish Care and Maintenance

Oakcraft cabinetry is made from real wood and is finished with a high quality lacquer coating that requires minium care. Only occasional maintenance is needed to retain your cabinets natural beauty and keep them looking new.

Because our products are exposed to the kitchen environment, we have worked closely with our finish suppliers to develop the most advanced chemical coating technology to provide the optimum protection and durability.

Wiping with a damp (not wet) soft cloth, followed by a dry, lint free, soft cloth will preserve the natural beauty of the finished surface, while removing most household dust or stains. Abrasive cleaners and scouring pads, which can scratch the surface should not be used. Paste waxes, household polishes, and solvent-based cleaners should also be avoided. These products will leave a residue, which will build up over time and eventually alter the original luster and sheen of the finish. For more stubborn stains, a solution of mild detergent (liquid soap) and water can be wiped on and gently rubbed using a damp (not wet) soft cloth and then dried thoroughly

Damage to surface should be repaired to restore the protective finish as quickly as possible to prevent further deterioration, from moisture, particulates, and other foreign substances. I the surface coating has been compromised, it is only necessary to lightly scuff the area with fine sandpaper, then apply a thin coat of touch-up lacquer to restore the protective top coating. If any of the color has been removed a touch up stain should be applied before top coating.

- Wipe all spills and moisture immediately
- Keep cabinet surfaces clean and dry
- Never allow cabinet surfaces to be in prolonged contact with strong acids, alkalis, or water.

Tile - Dal-Tile

LIMITED ONE-YEAR WARRANTY

Pursuant to Senate Bill 800, Construction Defect Law State of California, effective January 1, 2003

Dal-Tile Corporation, as a manufacturer of ceramic tile products for use in residential dwellings, warrants for a period of one-year after the date of installation, that its manufactured ceramic tile products will: (1) comply with ANSI 137.1, (2) meet all technical parameters disclosed in its product literature within industry acceptability tolerances (ASTM and ANSI), and (3) fulfill Senate Bill 800 ("SB 800") requirements that "ceramic tile shall not allow water into the interior of walls, flooring systems, or other components as to cause damage." Dal-Tile expressly disclaims any warranty claim for cracks or setting bed separation that results from an improper installation. Dal-Tile further expressly disclaims any warranty relating to cracks arising from impact damage, misuse of product or exposure to hazards outside ordinary residential usage.

IMPORTANT NOTE:

Ceramic tile will absorb water (0.5% - 18%). The water does not, however, seep through the tile exposing other building components to water damage. When ceramic tile absorbs water, the tile will expand slightly. This expansion does not result in water breaking moisture barriers created by the tile. It is the expansion of the tile that may cause grout to crack or, if tile is installed without expansion joints, may cause the tile to crack. A properly installed tile will not crack from the natural absorptive properties of tile. It is critical that the homeowner conduct periodic maintenance to verify that grout and caulk joints remains sealed and that any cracked tile is repaired promptly.

DAL-TILE ASSUMES NO RESPONSIBILITY FOR INSTALLATION.

Dal-Tile does not perform, subcontract, or recommend professionals for installation work. Further, Dal-Tile does not make any representations to any contractor or homeowner as to the appropriateness of a certain installation method or installation professional.

Claim Procedure under SBill 800 (summary):

- 1. Homeowner must submit written notice via certified mail, overnight mail, or personal delivery to the builder of the defect claim. The claim must provide the claimant's name, address, and preferred method of contact, and shall state that the claimant alleges a violation of the standards set forth in Chapter 2, beginning with section 896 of Senate Bill 800. The notice must specify, in reasonable detail, the claimed violation.
- 2.If the violation asserts a ceramic tile defect, the homeowner must also notify Dal-Tile Corporation, Product Claim Defect Department, 7834 CF Hawn Freeway, Dallas, Texas 75217.
- 3. Dal-Tile will acknowledge receipt of the claim within 14 days after receipt of the claim.
- Dai-Tile will conduct its initial inspection of the defect claim within 14 days of its acknowledgement of claim.
- Dal-Tile reserves its right to conduct a second inspection within 40 days after the first inspection after providing notice to homeowner of its intent to do so.
- 6. Dal-Tile will comply will all deadlines as specified in SB 800 as to its recommended resolution of the claim including, but not limited to: (1) repair of some of the tile, (2) repair of all of the tile, or (3) repair of none of the tile.
- 7. This warranty limits recovery to repair or replacement costs. Dai-Tile does not reimburse homeowner for "inconveniences" that homeowner may experience arising from the repair.



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Routine Care Of Ceramic Tile

Contaminants and spills on a glazed ceramic tile are, generally, easier to clean than other, more impervious surfaces. Glazed tile products should be cleaned routinely with an all-purpose, non oil-based household or commercial cleaner. The product chosen should also be grout joint cleaning compatible. The type of product may vary depending on the tile application and use. A multipurpose spray cleaner, which removes soap scum, hard water deposits, and mildew designed for every day use, can be used on wall tile areas in residential baths and showers

The entire area should be cleaned and scrubbed with cleaner solution through the use of a cotton mop, cloth, sponge, or non-metallic brush. The entire area should be rinsed with clean water to remove any cleaning solution residue. Remember that you should sweep or vacuum floor areas prior to cleaning to remove any dust or debris. Routine cleaners should never contain acids or ammonia. Acids can damage the grout and the glazed surface of the tile, and ammonia can discolor the grout.

Unglazed tile should be cleaned routinely with concentrated tile cleaners that have a neutral pH for safe regular use. These cleaners are better suited at removing grease, oils and normal spills from unglazed products. Again these products will vary depending on the application, amount of traffic and the use. The product chosen should also be compatible with cleaning the grout joints at the same time.

Removal of Sealers/Waxes/Floor Finishes:

If you need to remove a topical sealer or floor wax from a ceramic tile you should use a Tile Sealer & Adhesive remover. Always test a small area first. Apply a liberal amount of undiluted sealer & adhesive remover to a manageable area. Allow setting without drying until coating or residue softens. Reapply if necessary until sealer softens and can be removed. If necessary, agitate with white nylon scrub pad. Wipe up the residue with a cotton towel or sponge. Rinse thoroughly with clean water. Do not use on natural stone products.

Routine Care of Saltillo / Terra Cotta Tile

Soft clay tiles are categorized as specialty us products, and as such they are generally not governed by the same requirements as glazed or unglazed ceramic tile. These products will require some type of topical sealer protection. These sealers are designed to provide stain resistance and a durable finish to protect clay tile against wear. Pre-sealing the tile prior to grouting will act as a pre-grout sealer, provided it is applied over a clean tile surface. An additional final coat over the grouted floor will complete the sealing process along with providing the final grout stain protection.

There are two common types of sealers used today for sealing specialty tiles. The first is a water-based blend of acrylic polymers. This product allows for moisture vapor transmission, and it can be reapplied over itself, without stripping or removing the old sealer when the original application has become worn. The second type is a solvent-based sealer. Solvent-based sealers are not as forgiving after they have become worn, they must be stripped and removed prior to reapplication. Both types should be UV stable, which means the ultra violet rays from the sun should not break them down. You should always follow the manufacturer's instructions for use, maintenance and precautions.

The expected wear of the topical sealer will vary depending on the hardness, surface texture, type or area, usage, and type of maintenance products used. However, the average expected use life of the sealer, when properly prepared, is a maximum of 3 years. Harsh cleaning methods, high-alkaline or solvent-based cleaners can significantly lower the expected life of the sealer. Concentrated tile cleaners are recommended for routine cleaning.

Routine Stone Care

Natural Stone Care & Maintenance

To insure your natural stone products will provide you with a lifetime of aesthetics and utility, a proper maintenance program is crucial. Natural Stone products are porous by nature and require a different maintenance program than traditional ceramic tile.

Natural stone requires a different maintenance routine than traditional, man-made ceramic tile. Many of the cleaners acceptable for use on ceramic tile can stain, damage or dull stone. Dirt and dust will scratch the surface of stone. Therefore, stone floors should be vacuumed or dust mopped frequently to remove abrasive agents from the stone surface. Natural stone should be cleaned with neutral cleaners. Stone cleaners should never contain acid or bleach. Acids, even a light solution of vinegar and water, will etch and eventually damage natural stone.

Stone Cleaners:

Only use cleaners specifically designed for cleaning stone. These cleaners contain no acids and are concentrated neutral pH cleaners that will not affect existing sealers or wax-type coatings. The surface of the stone should be dampened with clear water. This will keep the cleaning solution on the surface so it can be effective. A solution of the cleaner and water missed to manufacturer instructions should be applied to the stone surface with a sponge or mop. On walls, kitchen counters or vanity tops, a spray bottle can be used to apply the cleaning solution. Allow sitting for manufacturers specified amount of time (usually 3 to 5 minutes). Agitate with a sponge, synthetic mop, soft bristle brush or through the use of a floor-scrubbing machine. Mop up dirty solution and buff dry

Countertops (marble) - Avonti Manufacturing

CULTURED MARBLE CONSUMER USE & CARE MANUAL

HOMEOWNER'S RESPONSIBILITY

- 1. Add caulking as necessary from shrinkage or from settling of residence.
- 2. Apply paste wax by hand with damp soft cloth every 6-8 months to prevent hard water build-up, to reduce scratching and to maintain luster. It allows quick and complete water run off.
- 3. Avoid gritty abrasive cleaners (any dry powders), bleaches or acctone based nail polish. Use only mild liquid soaps.
- 4. Hand wipe or buff any scratches incurred during normal use with similar paste wax using a feathering method.
- 5. Items not to be used or placed on marble:
 - A. Razor blades to remove any foreign material.
 - B. Cigarettes placed on any edges.
 - C. Any acetone based cleaners.
- 6. Objects such as vases, antiques, etc. should have rubber feet to properly ventilate cultured marble or discoloring may occur.

INHERENT PROPERTIES

Cultured marble manufacturing is a very imperfect science. We have instituted as many procedures as practical to insure a consistent product. Below are listed several inherent characteristics that are beyond our control.

HAIRLINE SCRATCHES. Whether inward or outward, they are considered normal, and customer maintenance is recommended to buff these scratches out as necessary.

IRREGULAR GRAINING OR COLOR. For each square foot of marble an exact percentage of pigment is added. Although they may be disbursed in a wide range of graining, this effect gives each product a character of its own. AVONTI MFG INC. cannot control the results of either color or graining.

GEL COAT. Gel coat, the outermost skin is prone to varying degrees of inconsistencies:

- A. Orange peel effect, caused by temperature or drying.
- B. Ripple effect, caused by shrinkage.
- C. Stress marks, which are also caused by shrinkage.
- D. Dimples, caused by impurities in the chemicals or catalyst.

SPECKS OR IMPURITIES. Specks or impurities are considered normal; lampblack which is mined with limestone (our basic material) are inherent. These specks filter down during the mixing stage and are impossible to identify prior to manufacturing. Very large stones are removed prior to delivery.

THERMAL SHOCK. Rapid changes of temperature from 50° to 70° F may cause cracking. This effect can be controlled by keeping marble at room temperature (65° to 80° F) and controlling water heater temperature to approximately 120° F.

CULTURED MARBLE LIMITED WARRANTY

- 1) Avonti Mfg., Inc., 941 W. Deer Valley Road, Phoenix, AZ 85027 is the warrantor of the cultured marble products which it manufactures.
- 2) This limited warranty is extended to an enforceable by those original consumer purchasers that have purchased cultured marble products from AVONTI MFG INC., which it manufacturers.
- 3) This limited warranty covers:
 - a) Defects from factory workmanship for a period of one (1) year from the date of purchase.
- 4) In the event there is a defect of the type described during the time period specified in paragraph 3, AVONTI MFG INC. may choose any of these remedies: It will either bear the cost of providing a replacement product or will repair the cultured marble product or will refund the cost of the product to the consumer at the sole option and discretion of the warrantor.
- 5) The procedure the original consumer must follow in order to obtain performance under this limited warranty is as follows: The consumer has the obligation to notify AVONTI MFG INC. to the attention of customer service department in writing, by mail or by hand delivery to the address set forth in Paragraph 1 of any claims the consumer is making under this limited warranty.

They must describe in detail:

- a) The nature of the claim;
- b) Must list the name, address and phone number of the builder;
- c) Must state the date of purchase:
- d) Should include a copy of the purchase invoice, if available; and
- e) Must state the place where the product is located and the time when it may be inspected.
- 6) Structural defects and factory workmanship shall not include:
 - a) Burns of any nature incurred after the warrantor's delivery and/or installation of the product;
 - b) Cuts and abrasions incurred after warrantor's delivery and/or installation of the product;
 - c) Irregular graining or colors;
 - d) Hairline Scratches
 - e) Ripples or lines visible in the gel coat;
 - f) Specks or impurities in the finished product;
 - g) Thermal shock, which means rapid temperature changes from cold to hot which tends to crack vanity bowls and/or bathtubs.

These items a) and b) are exceptions and exclusions under this warranty and are deemed by AVONTI MFG INC. to be conditions and use which the product is not intended to withstand based on the properties and characteristics of cultured marble manufactured by warrantor. These items c), d), e), and f) are exceptions and exclusions under this limited warranty and are deemed by AVONTI MFG INC. to be inherent characteristics or properties which may occur in the manufacture of cultured marble products. AVONTI MFG INC. is not responsible for service calls related to any of these exclusions. Any service calls relating to these exclusions will be charged to the customer.

- 7) AVONTI MFG INC. will perform its obligations under the limited warranty as soon as practical but not more than sixty (60) days after it determines a valid claim exists. Warrantor's determination as to what constitutes a defect not otherwise disclaimed is not final. In the event the consumer disputes warrantor's determination what a valid claim does not exist, the consumer may pursue any rights and remedies which may have and be entitled to under the law.
- 8) Additional limitations and exclusions under this limited warranty shall include:
 - a) Consequential, indirect and incidental damages incurred by the consumer as a result of any breach by warrantor of any written or implied warranty are specifically excluded under this warranty. The consumer's damages are limited to repair or replacement of product or refund as set forth in Paragraph 4 regarding Paragraph 3 defects.
 - Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.
 - b) All implied warranties are limited in duration one (1) year from the date of purchase.

Countertops - VT Industries



Limited One Year Warranty

Subject to the following terms and conditions, V-T Industries Inc. warrants to the original purchaser that all products manufactured by V-T Industries Inc. (the "Product") will be free from defects in materials and workmanship for a period of one (1) year. An original purchaser is a person or entity which purchases the Product directly from a distributor of V-T Industries Inc.

If upon inspection by V-T Industries Inc., the Product is defective in materials or workmanship, V-T Industries Inc., at its sole option, will replace or repair the Product at the F.O.B. point in the original contract of sale at no charge to the original purchaser.

The one (1) year period covered by this Warranty shall begin at the time the original purchaser acquires the Product from the distributor of V-T Industries Inc., and possession is delivered to the original purchaser as determined by the records of the distributor.

This Warranty shall not apply if the defect or failure was caused by damage occurring while the Product was in the possession of the original purchaser, or resulted from unreasonable use by the original purchaser, including but not limited to: 1) alteration, repair or modification of the Product in any way that would adversely affect its operation; 2) failure to provide reasonable and necessary maintenance; or 3) use with accessories or equipment not recommended by V-T Industries Inc., or for purposes other than the purpose for which the Product was designed, advertised, and sold.

NO REPRESENTATIVE OR DISTRIBUTOR OF V-T INDUSTRIES INC. HAS AUTHORITY TO MAKE ANY REPRESENTATIONS OR PROMISES EXCEPT AS STATED HEREIN.

THERE ARE NO WARRANTIES EITHER EXPRESSED OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WHICH EXTEND BEYOND THE WARRANTIES CONTAINED IN THIS DOCUMENT. V-T INDUSTRIES INC. SHALL NOT BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL, OR OTHER DAMAGES.

Douglas E. Clausen, President

V-T Industries Inc.

Paint - Frazee

Maintaining the Beauty of Your Frazee Finish!

Congratulations, your home has been painted with Frazee Paint! Builders, professional painters and homeowners alike trust Frazee to provide quality architectural coatings for new homes and developments. In fact, Frazee Paint is applied to over 48,000 new homes in California, Arizona and Nevada every year. In order to ensure years of lasting beauty, please follow these tips on how to clean and maintain the interior finish of your home.

CLEANING - Both the flat and enamel painted surfaces of your home can be cleaned. We recommend cleaning these surfaces by adding a small amount of mild dishwashing liquid to a pail of warm water. Wipe the surface using a sponge dampened in the solution. Be careful not to rub the area too aggressively as this could damage the finish. After the area has been cleaned, pat the surface dry by using a clean white cotton towel or rag. Avoid using abrasive cleaners such as cleanser or cleaning solutions that contain ammonia as this could damage the finish.

TOUCH-UP - A quart each of the flat and enamel finishes that has been used to paint your home has been included in your homeowner kit. Prior to touching up, make sure the surface to be painted is clean and free of all dirt, dust, grease, wax, oil or other contaminants. Select the quart of the appropriate finish and stir thoroughly. Using the supplied brush, apply paint sparingly to the touch-up area. Following the application, let the surface dry for a minimum of two hours before touching. Clean the brush and other tools with warm, soapy water. For large areas of touch-up, we recommend painting the entire wall (wall-to-wall, ceiling-to-floor) or trim surface, (i.e., doors) to ensure color consistency. For ease of application, use a roller (with the appropriate nap) to apply paint to large wall areas. If you need additional touch-up paint or have questions, please visit your nearest Frazee location listed on the reverse of this card.

REPAINT - When it's time to repaint, remember Frazee. Our stores are staffed with knowledgeable salespeople who can provide you with the right paint and supplies to get the job done right.



WARRANTIES

Frazee warrants that its products will conform and perform in accordance with the product specification sheets. Frazee also warrants its products to be free from defects in material and manufacturing.

Frazee's liability to the buyer or any third party for any losses or damages, shall not exceed beyond replacement cost, excluding freight and handling of material, proven to be defective. Frazee agrees to respond to claims of defective material, upon receipt of written notification and verification of product defects. Any claim must be made within five days of the discovery of the defect. In no event shall the seller be liable for any consequential or incidental damages or loss of profits.

Frazee is not liable for variation in environment, application, color, or changes in procedure, which may cause unsatisfactory results.

PHILOSOPHY

Since 1896, integrity has been the cornerstone of our business philosophy. Integrity, together with service and quality, are essential ingredients in every product Frazee manufactures.



January 1, 2003

To whom it may concern:

When applied in accordance with the label directions, Frazee Industries warrants that its products will provide satisfactory performance for a period of one year after application. Frazee Industries further warrants that its products will be free of defects in raw materials or manufacturing for a period of one year after application.

FRAZEE INDUSTRIES, INC.

Carl B. Howell Vice President, New Home Construction 6625 Miramar Road San Diego, CA 92121

Windows - Hallmark Manufacturing



AMERICAN OPENINGS WARRANTY

AMERICAN OPENINGS WARRANTS ALL FENESTRATION PRODUCTS WILL BE FREE FROM DEFECTS IN MATERIAL AND WORKMANSHIP FOR A PERIOD OF TWO (2) YEARS.

AMERICAN OPENINGS WILL, AT ITS OPTION, REPAIR OR REPLACE (NOT INCLUDING INSTALLATION) THE AFFECTED COMPONENTS OF ANY DEFECTIVE PRODUCT, OR REFUND THE PURCHASE PRICE OF THAT PRODUCT. IN ALL CASES A REASONABLE TIME MUST BE ALLOWED FOR WARRANTY REPAIRS TO BE COMPLETED.

LIMITATIONS ON INSULATED GLASS

- Units not installed in a level, plumb and square condition or to accepted glazing standards.
- Faulty building design/construction
- Scratched, broken or otherwise damaged units, unless so identified on delivery.
- Units near heat sources that are not properly baffled or effected by excessive vibration.
- Units installed in skylites, slope glazing, saunas used as swimming pool enclosures or other hostile environments
- Units used outside United States.
- Units subject to mechanical damage indicative of obvious mistreatment or abuse
- Units where sun control film or tint has been applied to the glass surface.
- "Rainbow" effects visible under certain conditions resulting from the parallelism and flatness of the glass.

Liability under this warranty shall be limited to replacement of failed units or components, F.O.B. the dealers who purchased the windows and does not include other materials or labor for replacement. Claims under this warranty must be directed to the authorized dealer from whom the unit was purchased and are subject to the manufacturer's inspection prior to replacement.

P.O. Box 22770, Tucson, Arizona 85734-2770 • Phone (520) 664-1202 • Fax: 664-0312

WARRANTY

ABC Window Company warrants its Products and Materials will meet all functionality standards and be free of defects for a period of ONE (1) year from the date of close of escrow.

ABC Window Company shall maintain first right to cure any suspected problems in its work or product. Owner must notify ABC Window Company in writing of any suspected problems. Repair action shall not, in any way, act to extend the period of time otherwise available under any legal recourse for cure of such suspected defect.

This warranty does not cover the following:

- Products altered or damaged by others such as: improper installation of security systems, any window tinting, any glass replacement or window repair done by other than ABC Window Company.
- 2. Unusual abuse or neglect by homeowner.
- 3. Use of hydrocarbons on the product, such as gasoline, kerosene, motor oil, etc.
- 4. Use of Foam insulation on vinyl windows.
- 5. Damage or leaks caused by acts of God and or nature, i.e.: earthquakes, hurricane force storms, etc.
- 6. Condensation occurring due to improper ventilation of home.
- 7. Stress cracks or glass breakage.

The occurrence of items 1-4 above will void the warranty.

There are no warranties that extend beyond the description on the face hereof. Any implied warranties, including but not limited to the implied warranties of merchantability or strict liability are specifically disclaimed.

Homeowner has the responsibility of care and maintenance of product. Failure to properly maintain the windows will void any and all warranties. Please see reverse side for care instructions.

Rev. 08/13/03 LMR

Garage Door Safety

IMPORTANT INFORMATION

Automatic Garage Door Opener and Garage Door Safety & Maintenance Guide



Garage Door System Safety — An Automatic Decision

A garage door is the largest moving object in the home. They are often operated by electric door openers. Proper installation, operation and maintenance and testing of the garage door and automatic opener are necessary to provide safe, trouble-free operation. An improperly adjusted garage door or automatic opener can exert deadly force when the door closes. This could lead to serious injury or death from being hit by a closing garage door or from being trapped under the door.

Safety is Everyone's Business

A few simple precautions can protect your family and friends from potential harm. Please take a few minutes to read the following safety and maintenance tips. Refer to your garage door and opener owner's manual for details specific to the model you own. Then check the operation of your garage door and automatic opener.



Some of the following precautions and warnings are identified with this "Safety Alert Symbol". This symbol indicates a potential personal safety hazard that can result in injury or death.

Garage Door Openers Are Not Toys





Do not stand or walk under a moving door! Do not let children or adults play "beat the door." It is dangerous and can result in serious injury or death. Adults should set a good example. Know how to use the emergency release, in case someone is pinned by the door.





Do not let children play with or use the transmitters or remote controls. Always place and store them out of the reach of children.

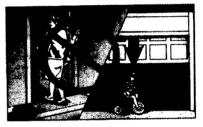




The pushbutton wall control should be out of reach of children (at least 5 feet from the floor) and away from all moving parts. Mount and use the button where you can clearly see the moving garage door.

Teach Your Children About Garage Door and Opener Safety

Garage door openers are not toys. Careless operation and allowing children to play with or use garage door opener controls can lead to tragic results. Discuss garage door safety with your children. Explain the danger of being trapped under the door.



When using the pushbutton or transmitter, keep the door in sight until it completely stops moving. Teach children never to play under or near an open garage door.





Teach children to keep their hands and fingers clear of section joints, hinges, track, springs and other door parts. Contact with a moving door or its hardware could cause serious injury. These injuries can also happen with garage doors that don't have automatic openers.

Routine Maintenance Can Prevent Tragedies

Take a few minutes to inspect and test your complete garage door system. Make monthly inspection and testing a part of your regular routine. Safety is everyone's business. Make garage door and garage door opener safety automatic in your home.

Monthly Maintenance Checklist

Garage Door Opener

- Reversal Test
- Force Setting Test
- Additional Safety Devices

Garage Door

- Visual Inspection Springs, Rollers, Pulleys, Cables and Track
- Lubrication
- Door Balance

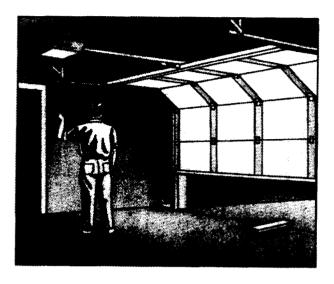
Consult owner's manuals for additional recommended maintenance for your models of door and opener.

Testing and Maintaining The Garage Door Opener

There are routine safety and maintenance steps that you should follow once a month. Review your owner's manual for the door opener. If you don't have the owner's manual, look for the opener model number on the back of the power unit and request a manual from the manufacturer.

Reversal Test

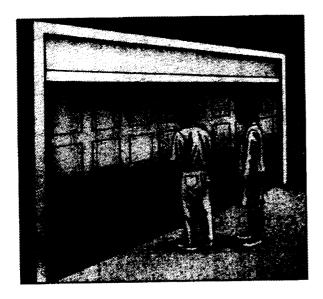
Make sure your opener has a reversing feature. If a reversing feature is not present, it should be replaced. Garage door openers manufactured after January 1, 1993 are required by federal law to have advanced safety features which comply with the



latest U.L. 325 standards: Contact your manufacturer or installer for additional information.

Test the reversing feature every month.

- First, test the balance of the door (see "Testing and Maintaining The Garage Door"). If the door is properly balanced, then proceed.
- With the door fully open, place a 1-1/2" thick piece of wood (a 2" X 4" laid flat) on the floor in the center of the door.
- Push the transmitter or wall button to close the door. The door must reverse when it strikes the wood. (Note that the bottom part of "one piece doors" must be rigid so that the door will not close without reversing.)
- If the door does not reverse, have it repaired or replaced. Have a qualified individual adjust, repair or replace the opener or door.



Force Setting Test

Test the force setting of your garage door opener by holding the bottom of the door as it closes. If the door does not reverse readily, the force may be excessive and need adjusting. See your owners manual for details on how to make the adjustment. Test the reversing feature after any adjustment.

Additional Safety Devices

Many garage door openers can be equipped with additional safety devices. Consider adding a photo eye or edge sensor as an extra measure of safety to protect against entrapment. Keep in mind that adding more safety devices will not make an old opener meet the current U.L. standards.

Make sure the additional safety devices, such as photo eyes or edge sensors, are properly installed and adjusted (see owner's manual).

Testing and Maintaining The Garage Door

Perform routine maintenance steps once a month. Review your owner's manual for the garage door. If you don't have a manual, look for the model number on the back of the door, or check the lock handle, hinges or other hardware for the manufacturer's name and request a manual from the manufacturer.

Visual Inspection

Look at the garage door springs, cables, rollers, pulleys and other door hardware for signs of wear. If you suspect problems, have a qualified person make repairs.



WARNING — Springs are under high tension. Only qualified persons should adjust them.

Garage door springs, cables, brackets and other hardware attached to the springs, are under very high tension and, if handled improperly, can cause serious injury. Only a qualified professional or a mechanically experienced person carefully following the manufacturer's instructions should adjust them. The torsion springs (the springs above the door) should only be adjusted by a professional. Do not attempt to repair or adjust torsion springs yourself.

A restraining cable or other device should be installed on the extension spring (the spring along the side of the door) to help contain the spring if it breaks.

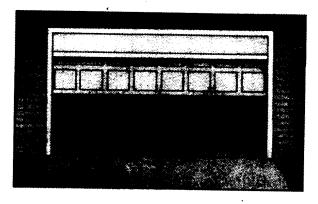


Never remove, adjust or loosen the screws on the bottom brackets of the door. These brackets are connected to the spring by the lift cable and are under extreme tension.



Lubrication

Regularly lubricate the moving parts of the door. However, do not lubricate plastic parts such as plastic rollers and plastic idler bearings. Consult the door owner's manual for the manufacturer's recommendation.



Door Balance

Periodically test the balance of your door.

- Start with the door closed.
- If you have a garage door opener, use the release mechanism so you can operate the door by hand when doing this test.
- You should be able to lift the door smoothly and with little resistance. It should stay open around three or four feet above the floor. If it does not, it is out of adjustment. Have it adjusted by a qualified service person.

Garage Door Opener Safety – An Automatic Decision

This important information is provided by the U.S. Consumer Product Safety Commission, the National Safety Council and the Industry Coalition for Automatic Garage Door Opener Safety.



National Safety Council

©1996 The Industry Coalition For Automatic Garage Door Opener Safety Printed in U.S.A.

Garage Doors - Overhead Door Corporation



HOMEOWNER'S GARAGE DOOR MANUAL

READ THIS MANUAL CAREFULLY AND OBSERVE ALL WARNINGS WHEN OPERATING OR MAINTAINING YOUR GARAGE DOOR.

409957-0001 4/3/02 1-800-929-DOOR www.OverheadDoor.com Keep this Manual for Future Reference

PAINTING INSTRUCTIONS STEEL DOORS

Clean surface with mild detergent solution. Rinse with clear water and allow to dry completely. Prepare surface with a liquid sander/deglosser according to manufacturers' instructions. Finish with a premium **ACRYLIC LATEX** paint. Read paint manufacturers' Instructions.

NOTE: Alkyd (oil) based paints are **NOT** to be used and void the manufacturer's warranty. Observe temperature limitations for paint.

WARNING

Overhead doors are large, heavy objects that move with the help of springs under high tension. Since moving objects and springs under tension can cause injuries, your safety and the safety of others depends on you reading the information in this manual, if you have questions or do not understand the information presented, call your nearest service representative.

| The second of the second secon | | |
|--|---|--|
| POTENTIAL HAZARD | EFFECT | PREVENTION |
| MOVING DOOR | Can Cause Serious Injury or Death | Keep people clear of opening while door is moving. |
| HIGH TENSION SPRING | Can Cause Serious Injury or Death | DO NOT remove, repair or adjust any structure, wood block, steel bracket, cable or anything else to which door spring parts are fastened. Repairs and adjustments must be made by a trained service person using proper tools and instructions. |

In the following text, the word **Warning** means that severe injury or death can result from failure to follow instructions.

PURPOSE

The manufacturer has designed and sized the components specifically for each type of door. The door will operate safely and efficiently over an extended period of time if it is **PROPERLY** INSTALLED, OPERATED, and MAINTAINED. The manufacturer recommends that the garage door be inspected and lubricated regularly as described in this manual.

MANUAL OPERATION

Do not place fingers or hands between sections.

MAINTENANCE

All mechanical devices require periodic service and/or maintenance, and garage doors are no exception. The amount and frequency of preventive maintenance required depends on the local environment conditions and the frequency of door use. Preventive maintenance should be performed at least every six months, however more maintenance may be required if conditions warrant.

Maintenance includes lubrication of moving parts and inspection of certain components for tightness. The following maintenance and inspection recommendations may be established until actual operating conditions dictate otherwise.

GENERAL INFORMATION

Operate the door only when it is properly adjusted and free of obstructions. If the door is hard to operate or does not move, call a qualified door company for repair.

If door is to be electrically operated, remove pull ropes and remove or disable the lock.

Repaint the door when paint is worn or damaged. Do not paint track, rollers, hinges, lift cables, springs, lock, or warning labels.

PURPOSE

The manufacturer has designed and sized the components specifically for each type of door. The door will operate safely and efficiently over an extended period of time if it is **PROPERLY INSTALLED**, **OPERATED**, and **MAINTAINED**. The manufacturer recommends that the garage door be inspected and lubricated regularly as described in this manual.

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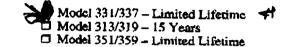
Repaint the door when paint is worn or damaged. Do not paint track, rollers, hinges, lift cables, springs, lock, or warning labels.

Gberhead Boor Anrporation Banner Collection Garage Boor Limited Warranty

The Distributor of Overhead Door Corporation products whose name appears below ("Seller") warrants to the original purchaser of the Overhead Door Corporation garage door model checked below as follows:

Seller warrants the door sections against splitting, cracking or deterioration due to rusting through for the time period listed below beginning on the date of installation, as long as the original purchaser owns the home.

| 0 | Model | 311/317 - | 10 Years |
|---|-------|-----------|------------------|
| | Model | 312/318- | 15 Years |
| | | | Limited Lifetime |



Seller warrants the door's hinge system and track to be free from defects in material and workmanship for a period of 10 years from the date of installation, as long as the original purchaser owns the home. Seller warrants all other components of the garage door to be free from defects in material and workmanship for a period of one year from the date of installation.

Seller's obligation under this warranty is specifically limited to repairing or replacing, at its option, any part which is determined by Seller to be defective during the applicable warranty period. Seller's repair or replacement labor is included for a period of one year from the date of installation. After one year, all labor charges associated with the repair or replacement of any part will be the responsibility of the owner.

This warranty applies only to garage doors which are installed in single family residential applications. It does not cover any door installed in a commercial, industrial or other non-residential application. This warranty does not apply to any door which has been altered or repaired by any person not authorized by Overhead Door Corporation to do so. This warranty does not apply to any door or component which has been damaged or deteriorated due to misuse, accident, improper painting or failure to provide necessary maintenance.

THERE IS NO WARRANTY OF MERCHANTABILITY, WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE OR ANY OTHER IMPLIED WARRANTY BEYOND THE ONE-YEAR PERIOD DESCRIBED ABOVE. SELLER WILL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES OR FOR ANY FURTHER LOSS WHICH MAY ARISE IN CONNECTION WITH ANY CLAIM.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Some states do not allow limitations on how long an implied warranty lasts and some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

Sciler has not established any informal dispute settlement procedure of the type described in the Magnuson-Moss Warranty Act. Claims under this warranty must be made in writing promptly after discovery and within the applicable warranty period to the Seller whose name and address appear below. Proof of purchase and identification as the original purchaser may be required.

| ORIGINAL PURCHASER: | | |
|-----------------------|--|--|
| INSTALLATION ADDRESS: | | |
| | | |
| SELLER: | | |
| SELLER'S ADDRESS: | | |
| • | | |
| FACTORY ORDER #: | | |
| DATE OF INSTALLATION: | | |
| SIGNATURE OF SELLER: | | |
| | | |

. .

Garage Door Opener - Genie

MULTI-BUTTON REMOTE

1. Programming

NOTE: Each button on a multi-button remote is designed for use with 1 door. You cannot program 2 buttons to operate the same door, nor can you program 1 button to operate 2 doors.

- · For each button.
- > Program each button separately.
- > Follow single button remote procedure (previous page) for each button.

2. Operating.

Same as single button remote.

LOST OR STOLEN REMOTE

1. Clear memory.

- Press and hold learn code button (on power head) for 10 seconds or until Indicator LED
- goes out.

 Program remaining or new remote controls as done previously. Your door operator will no longer recognize any signal received from the missing remote control, or any other which has not been reprogrammed.

REMOTE CONTROL BATTERY REPLACEMENT AND VISOR CLIP INSTALLATION

1. Battery replacement.

- Use coin, ball-point pen or similar device.
 Sentty push straight in on battery cover lock tab as shown (Fig. 9-1).
- Flip open battery cover. > Remove old battery.
- Make sure new battery is facing proper direction (Match battery polarity with symbols inside battery cover) (fig. 9-2).

 Recommended replacement battery is Eveready A-23, 12 volt.

 Slip new battery into place
- Slip new battery into place. > Snap battery cover shut.
- Operate remote to make sure it is working properly. (No re-programming is needed.)
- - Slide visor clip into back of remote control. > It will snap into place (Fig. 9-3).

9 LIGHT BULB/LENS INSTALLATION

- 1. Light bulb
 - Recommendations.
 - > Do not use a short neck bulb.
 - > Light bulb should be no more than 100 Watts.
 - >Use a heavy duty service bulb for longer life.
 - · Screw bulb into socket.
- - Slide hinges into slots on motor cover (Fig. 10-1).
 - Swing lens up.
 - > Fit tabs into slots provided on power head.



FIG. 9-1 Open battery cover.

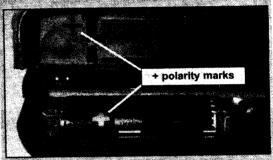


FIG. 9-2 Match battery polarity.



FIG. 9-3 Attach visor clip

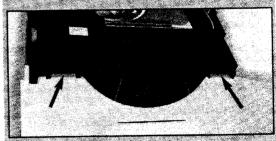


FIG. 10-1 Slide hinges into motor cover.



FIG. 10-2 Fasten lens

IMPORTANT SAFETY INSTRUCTIONS A WARNING:

To reduce the risk of severe injury or death:

- 1. READ AND FOLLOW ALL INSTRUCTIONS.
- 2. Never let children operate or play with door controls. Keep remote control away from children.
- 3. Always keep people and objects away from moving door. Keep door in sight until it is completely closed. NO ONE SHOULD CROSS THE PATH OF THE MOVING DOOR.
- 4. Test operator monthly. The garage door MUST reverse on contact with a rigid 1-1/2 inch object (or a 2" x 4" board laid flat) at the center of the doorway on the floor. After adjusting either the force or the limit of travel, retest the door operator. Failure to adjust the operator properly may cause severe injury or death.
- 5. If possible, use the emergency release only when the door is closed. Use caution when using this release with the door open. Weak or broken springs may cause the door to fall rapidly causing severe injury or death.
- 6. KEEP GARAGE DOOR PROPERLY BALANCED. See door owner's manual. An improperly balanced door could cause severe injury or death. Have a qualified service person make repairs to cables, spring assemblies, and other hardware.
- 7. The electrical power to the door operator MUST be turned off when power head cover is removed. Electrical power must remain off while making electrical connections.
- 8. SAVE THESE INSTRUCTIONS.

10 MAINTENANCE

ROUTINE MONTHLY MAINTENANCE

- 1. Door springs and hardware.
 - Do not operate garage door automatically or manually if springs are broken.
 - > CONTACT A PROFESSIONAL FOR SERVICE.
- 2. Door balance.
 - Close the door.
 - Pull emergency release knob down to release door from carriage assembly.
 - Raise door manually approximately 3 feet.
 - > Door should stay in that position or close very slowly.
 - > If door moves quickly, HAVE DOOR SERVICED BY A PROFESSIONAL.
 - · Close the door.
 - Pull emergency release knob toward power head to place release lever in engaged position.
 - > Operate door using remote.
 - > Door will re-attach itself to carriage assembly.

3. Contact reverse.

- Place a 2" x 4" board laid flat on floor.
 In center of garage door opening.
- · Close door by using wall button or remote control.
 - > Door fails to reverse on contact with board see Section 7 "CONTACT REVERSE."
 - > Operator still fails CONTACT A SERVICE PROFESSIONAL

4. Safe-T-Beam® System.

 Use Self-Diagnostic STB system Troubleshooting information to maintain safe operation (Below).

TROUBLESHOOTING GUIDE

Use This Guide To Correct Problems With Door Operator. If These Solutions Do Not Work,
Call Customer Service at 1.800.35.GENIE

SELF-DIAGNOSTIC STB SYSTEM TROUBLESHOOTING

| SOURCE RED LED | SENSOR GREEN LED | INDICATED CONDITION | REQUIRED ACTION |
|-----------------------------|---------------------|--|--|
| ● ON | ON | NORMAL OPERATION | NONE REQUIRED |
| O OFF | O OFF | POWER HEAD NOT POWERED WIRING FROM POWER HEAD BAD | CHECK BREAKERS, FUSES, PLUGS CHECK WIRING FOR OBVIOUS SHORTS |
| O OFF | ● ON | 1. WIRING TO SOURCE MISSING OR BAD 2. POWER HAS BEEN INTERRUPTED | CHECK WIRING REMOVE POWER AND REAPPLY |
| 2 BLINKS, PAUSE (REPEAT) | ● ON: | BEAM NOT ALIGNED BEAM OBSTRUCTED SENSOR DEFECTIVE | CHECK ALIGNMENT CHECK FOR OBSTRUCTION CALL CUST SERV |
| 2 BLINKS, PAUSE (REPEAT) | O OFF | WIRE TO SENSOR MISSING OR BAD SENSOR DEFECTIVE | CHECK WIRING CALL CUST, SERV. |
| 3 BLINKS, PAUSE (REPEAT) | ● ON | 1. SENSOR RECEIVING INTERFERENCE | ATTEMPT TO DETERMINE SOURCE OF INTERFERENCE CALL CUST. SERV. |
| 4 BLINKS, PAUSE (REPEAT) | ● ON | SOURCE NOT SENDING PULSES SOURCE DEFECTIVE | CALL CUST, SERV. CALL CUST, SERV. |

DISCONNECT THE STB SYSTEM FROM THE DOOR CAN BE CLOSED IF YO
 DISCONNECT THE STB SYSTEM FROM THE OPERATOR
 HOLD WALL CONTROL BUTTON DOWN UNTIL DOOR IS CLOSED
 (REMOTE CONTROL & WIRELESS KEYPAD WILL NOT WORK WITHOUT STB)

For Answers: CALL CUSTOMER SERVICE at 1.800.35.GENIE

TROUBLESHOOTING GUIDE (CONTINUED)

FOR HELP-1.800.354.3643 OR GENIECOMPANY.COM

A CAUTION

Use wall control supplied with operator. Any other wall control can cause the operator to operate unexpectedly and light not to work.

Operator does not run from wall control.

- · Check lock switch on wall console.
- · Check power source.
- Plug a lamp into outlet used for power head If lamp works, power source is OK.
- If not, check fuse or circuit breaker.
- · Power is OK.
 - Check connections at power head terminals.
 - Check connections at wall control.
- · Check wires to ensure they are not cut. Staples can cut insulation and short wires. If wire is cut, replace it.

Door operator starts for no reason.

- · Was a remote control lost or stolen? Erase all remote control codes from receiver memory and reprogram (See section ma)
- · Button stuck on wall control.
- · Check CLOSE limit switch setting (See section ...).
- Wires shorted.

Door starts down, then stops before it's closed.

 Check CONTACT REVERSE (See section ...).

Door starts down, then stops and goes back up.

- · Check "STB" system for beam obstruction or misalignment of lenses (See section 3).
- Check "STB" diagnostic code.
- Check "CLOSE FORCE" adjustment (See section).

Door will only run closed.

- · Check OPEN limit switch for short and proper wiring.
- · Check "OPEN FORCE" adjustment (See section)
- Check door condition and door spring.

Door will only run open

- Check "STB" system (See self-diagnostic "STB" Troubleshooting Chart).
- · Check CLOSE limit switch for short and proper wiring.
- Check "CLOSE FORCE" adjustment (See section).

out

- Lights will not go . Disconnect and reconnect wires on wall control (See section 2)
 - Check wiring.
 - · Incompatible wall control.

Door starts up, but stops before it's completely open.

- · Be sure door, operator, and springs are in good repair, properly lubricated and balanced (See maintenance section).
- · Check "OPEN" limit switch setting
- (See section 6).
 Check "OPEN FORCE" adjustment (See section 181).

Operator runs. but door does not move.

- · Make sure carriage is engaged to carriage slide.
- Place carriage lever in lock position.
- Check force adjustment (See section 6). Door operator will NOT run more than 30 seconds each way if door does not move.

Remote control has less than 25 feet operating range.

- · Relocate remote control inside car.
- Point remote control at garage door.
- Replace battery (See section).
- · Reposition door operator antenna.
- DO NOT attempt to retune remote controls.

Operator works from wall control, but not from remote control.

- · Program remote control code into receiver memory. (See section)
- · Replace remote control battery with good one. (See section 33).

Noisy operation.

- Be sure all fasteners are tight.
- Be sure door and operator is in good repair, properly lubricated and balanced (See monthly maintenance section).

Safe-T-Beam® system malfunction

If an operational problem exists, and operator will not run closed. The operator can be forced to close as follows (See section).

- · Disconnect the "STB" system from the operator.
- · Hold the wall control button down until door is completely closed.

Use self-diagnostic "STB" system Troubleshooting information to maintain safe operation.

If you have any questions, please do not hesitate to contact customer service at:

1.800.354.3643

The Genie Company Professional Access Systems LIMITED WARRANTY

What is covered: Any defect in material and product workmanship from personal, normal household use in accordance with the Owner's Manual.

For how long:

350L - 1 Series - 3 years on Motor, and 1 year on all other parts. 350L - 2 Series - 5 years on Motor, and 2 years on all other parts. 350L-2WKC Series - Lifetime* on Motor, 2 years on all other parts. 350L-2C Series - 5 years on Motor, 2 years on all other parts.
350L-2WK Series - 5 years on Motor, 2 years on all other parts.
500ML Series - 5 years on Motor, and 3 years on all other parts. 700ML Series - Lifetime* on Motor, 3 years on all other parts.

*Lifetime warranty - warranted for as long as you own your home.

Who gets the warranty: This warranty is limited to the consumer who originally purchased the product.

Geographic scope: This warranty applies only to Genie products purchased in the United States, Canada or Mexico.

What we will do: If your Genie product is defective, we will repair it or, at our option, replace it at no charge to you. If we repair your Genie product, we may use new or reconditioned replacement parts. If we choose to replace your Genie product, we may replace it with a new or reconditioned one of the same or similar design

Limitations:

Limitations:
IMPLIED WARRANTIES, INCLUDING THOSE OF FITNESS FOR A PARTICULAR PURPOSE AND MERCHANTABILITY (AN UNWRITTEN WARRANTY THAT THE PRODUCT IS FIT FOR ORDINARY USE), ARE LIMITED TO ONE YEAR FROM THE DATE OF PURCHASE. GENIE WILL NOT PAY FOR: LOSS OF TIME: INCONVENIENCE; LOSS OF USE OF YOUR GENIE PRODUCT OR PROPERTY DAMAGE CAUSED BY YOUR GENIE PRODUCT OR ITS FAILURE TO WORK; ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES; OR ANY DAMAGES RESULTING FROM MISUSE OR MODIFICATION OF YOUR GENIE DAMAGES RESULTING FROM MISUSE OR MODIFICATION OF YOUR GENIE PRODUCT.

Some states and provinces do not allow limitations on how long an implied warranty lasts or the exclusion of incidental or consequential damages, so the above exclusions may not apply to you.

How to obtain warranty service: To obtain warranty service for your Genie product, you must provide proof of the date and place of purchase of the product.

1. Do-It-Yourself-Service. Call the Genie Consumer Connection toll free at

1.800.354.3643 to speak in person to a trained Genie representative for assistance in diagnosing the problem and arranging to supply you with the required parts for do-it-yourself repairs. Trained service representatives are available Monday-Friday, 8:00 a.m. - 8:00 p.m., Eastern Time, and on Saturday, 11:00 p.m. to 5:00 p.m., Eastern Time (subject to holidays) You may also get the information you need at www.geniecompany.com.

2. Service From Authorized Dealers.

You also may obtain warranty service from Genie authorized dealers listed in the enclosed directory. Please note that this listing is subject to change without notice; we recommend that you verify the dealer's status by calling the Genie Consumer Connection at 1.800.654.3643 or by visiting www.geniecompany.com before reaching any agreement on service. If warranty service is provided by an authorized dealer, Genie will provide all required parts under warranty at no charge to you, but the dealers are independent business people and may render a bench or service call charge for their services. Genie will not reimburse you or otherwise be responsible for those charges.

We suggest that you retain your original packing material in the event you need to ship your Genie product. Be sure to include your name, address, telephone number, proof of date and place of purchase and a description of the operating problem. After repairing or, at our option, replacing, your Genie product, we will ship it to your home at no cost to you for parts and labor, but you will have to pay a minimum of \$8.00 for shipping and handling charges.

Your choice of either one of the above-described service options is your exclusive remedy under this warranty.

What this warranty does not cover: This warranty does not cover batteries (which are considered replaceable parts), installation, commercial use, defects resulting from accidents, damage while in transit to our service location or damage resulting from alterations, misuse or abuse, lack of proper maintenance, unauthorized repair or modification of the product, affixing of any attachment not provided with the product, fire, flood, or acts of God, or other failure to follow the

This warranty is the only one we will give on your Genie product, and it sets forth all our responsibilities regarding your Genie product. There are no other express warranties.

State and province rights: This warranty gives you specific legal rights, and you may also have other rights which vary from state to state and province to province.

FOR ANSWERS: CALL 1.800.354.3643

Irrigation Controllers - Calsense

IRRIGATION CONTROLLERS

Model ET2000 Irrigation Controller

General Description and Features

The Calsense Model ET2000 Irrigation Controller is an important water conservation and water management tool. Some of it's major water management features are: Flow Monitoring,

How to Specify:

Refer to page 2-26 for Model Specifications

Moisture based irrigation, and the use of daily ET to calculate station run times automatically each watering cycle, which are described in more detail later in this section. The Model ET2000 provides a wide range of programming flexibility, some of it's features are described in detail below:

<u>Multiple Programs with Overlap Protection</u>: There are seven programs available on the ET2000 Irrigation Controller, five programs (A, B, C, D, and E) are designed for standard irrigation systems and have Overlap Protection, that is while one program is irrigating, another cannot start until the first is finished. The other two programs (D1 and D2) are designed for drip irrigation systems and are able to irrigate while another program is running.

<u>Cycle and Soak</u>: Schedules can be set with a fixed run time per cycle and a fixed soak in time between cycles for each station in order to maximize infiltration and minimize runoff.

Multiple Watering Day Schedule: The user has the option of selecting either a 7 day, 14 day, 21 day or 28 day watering schedule.

Twelve Month Master Schedule: Allows the user to pre-program an irrigation schedule for an entire year, thus saving the trouble and expense of changing the schedule every month.

<u>Moisture Based Irrigation</u>: The user sets a preset soil moisture content. The controller stops irrigation when the irrigation cycle reaches the preset moisture content.

<u>Temporary Schedule</u>: A temporary schedule can be easily entered to override the 12 month master schedule if necessary. The controller will revert to the master schedule automatically after the temporary schedule has finished running.

<u>Budget of Water Use</u>: A budget of water use can be entered into the ET2000 Controller, the controller will then continually compare this budget with the users actual usage (based on scheduled irrigation). If the actual usage ever exceeds the budgeted usage, the controller will alert the user by flashing "OVER BUDGET" on the screen.

<u>Field Wiring Electrical Alerts</u>: The Model ET2000 Irrigation Controller will detect and alert the user to open circuits and shorted circuits in field wires and solenoids.

On Screen Help: There is an extensive on screen help system. At the touch of a button, the user can view a Help Screen explaining the usage of any key on the Model ET2000 Irrigation Controller. There are also Help Screens explaining how to program the Model ET2000 Irrigation Controller. All of the Help Screens can be viewed in Spanish as well as English.

Permanent Memory: All program data and set-up data, including date and time are stored in non-erasable memory

<u>Available Sizes</u>: The Calsense ET2000 Irrigation Controller is available in 8, 12, 16, 24, 32, and 40 station models.

FECALSIENSE.

Rev01/03

Warranty

The California Sensor Corporation warrants to the purchaser of its manufactured products against defects in material and workmanship for a period of five (5) years from the date of original purchase by the owner. Manufactured products include all Calsense Irrigation Controllers, TP-1 Transient Protection Boards, TPB Boxes, and all Calsense enclosures.

All peripheral, accessory, and RF equipment such as ET Gages, Flow Meters, and Rain Buckets (but not limited to) and used in conjunction with Calsense Irrigation Controllers, have distinct warranties of their own and should be noted separately from this warranty.

In addition, Calsense warrants moisture sensors for a period of five (5) years in accordance with the following proration table:

First year
Second year
Third year
Fourth year
No charge
20% of purchase price
40% of purchase price
60% of purchase price

California Sensor Corporation liability is limited solely to the replacement or repair of defective parts. There are no other express warranties. This warranty does not apply where the equipment is used, or installation performed, in any manner contrary to California Sensor Corporation's specifications and instructions, nor where equipment is altered, modified, misused or neglected.

California Sensor Corporation is not liable for indirect, incidental or consequential damages in connection with the use of equipment, including but not limited to, vegetation loss, property damage or personal injury from installer's negligence.

ALL WARRANTY ON PRODUCT WILL BE VOID IF PRODUCT IS USED WITH A FLOW METER OTHER THAN THE CALSENSE FM FLOW METER.

Lightning Warranty

The standard warranty will be extended to cover lightning damage if the controllers and / or central system is installed in accordance with our installation instructions for each item installed, the National Electrical Code, and the grounding instructions (See the Transient Protection Grounding Section of this guide for more information).

For service or repair, please call (760) 438-0525 or 1-800-572-8608 Monday through Friday, between 8:00 A.M. and 5:00 P.M. Pacific Standard Time.

EFCALSENSE.

Rev01/03

How to Contact Calsense:

Factory

CALSENSE

2075 Corte del Nogal, Suite P

Carlsbad, CA 92009 Phone: (800) 572-8608 Phone: (760) 438-0525 Fax: (760) 438-2619 David Byrna, President Rick Capitanio, Sales

Loren Wolverton, Specification Sales

Wyatt Lovejoy, Sales, West Los Angeles Area Bob Moxley, Sales, East Los Angeles Area Mark Peacock, Sales, Washington and Oregon Richard Wilkinson, Field Service Manager

Calsense Distributors:

AQUA-FLO SUPPLY

Phone: (805) 967-2374

Locations: Southern California

EWING IRRIGATION PRODUCTS

Phone: (800) 343-9464

Locations: Southern California

Northern California

Arizona Nevada New Mexico Georgia Colorado Louisiana Alabama

HORIZON

Phone: (800) 445-9399 Locations: Oregon

Washington

IMPERIAL IRRIGATION Phone: (800) 255-4532

Locations: Southern California

IMPERIAL SPRINKLERS Phone: (714) 792-2920

Locations: Southern California

IRRIGATION STATION

Phone: (800) 730-7246 (800) 356-2458

Locations: Oklahoma

Texas

J HAROLD MITCHELL

Phone: (800) 675-7305

Locations: Southern California

M & M BOYS

Phone: (909) 371-1296

Locations: Southern California

MAJOR IRRIGATION

Phone: (619) 283-6527

Locations: Southern California

SMITH PIPE & SUPPLY

Phone: (805) 498-6744

Locations: Southern California

UNITED GREEN MARK

Phone: (800) 426-4680 ext 8 (sales)

Locations: Southern California

Northern California

Nevada

Or, contact Calsense at (800) 572-8608 to locate a distributor branch near you.

AT CALSENSE.

Revoting

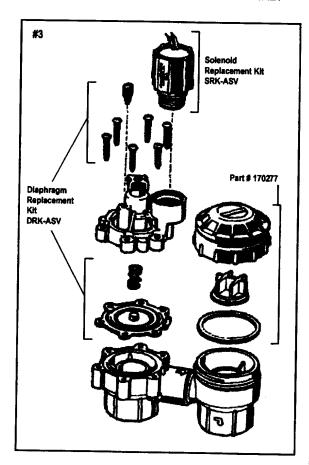
Irrigation Valves - Rain Bird

REPAIR KITS

Two types of repair kits are available (Diagram 3)

- SRK-ASV Solenoid Replacement Kit. The SRK-ASV will replace a defective solenoid on models DAS-075/ASVF and DAS-100/ASVF.
- DRK-ASV Diaphragm Replacement Kit. The DRK-ASV will replace a defective diaphragm on models DAS-075/ASVF and DAS-1 00/ASVF.

For technical assistance call us at 1-800-RAIN-BIRD.

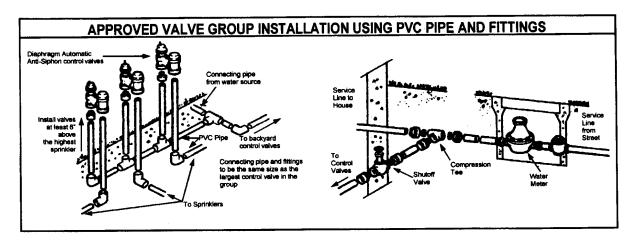


TROUBLESHOOTING GUIDE

- A. Water Won't Shut Off (seeping or full flow)
- 1. Incorrect controller setting (check length of run time)
- 2. Loose solenoid (should be tight)
- Loose bleed screw check and tighten (finger tight only)

- 4a. Diaphragm filter clogged. Use manual, external bleed to flush valve. If this does not improve operation, remove top of valve (6 screws). Remove diaphragm and inspect filter for debris. (Check 4b at the same time.) Clean diaphragm filter and reassemble valve.
- 4b. Diaphragm/valve seat fouled or damaged. Remove diaphragm and inspect diaphragm and valve seat for damage or debris. Clean or replace diaphragm and reassemble valve.
- B. Valve Won't Turn On Manually
- Flow control turned off. Check by turning black knob counterclockwise until encountering resistance. Do not force beyond point of resistance. Turn knob back clockwise, approximately one half turn.
- Water supply off at meter or system control shut-off. (Check this first by manually bleeding the valve with either bleed screw or by turning solenoid counterclockwise).
- 3. Blocked ports. If valve will turn on with manual, external bleed screw but NOT by turning the solenoid for internal bleed, remove the solenoid (rod check solenoid cavity for debris. Visually check small square hole at edge of cavity and carefully run a straightened wire through the center round hole to clear tube of possible debris. Take care not to scratch sides of center port tube as any change in size can affect valve operation.
- C. Valves Won't Turn on Electronically (with controller)
- Controller settings incorrect. Check programming, start times, run times and day schedules.
- If none of the valves are working, check the common (ground) wire for a tight connection or damage. If only one or part of the valves do not work, check wiring for damage (staples, nails, cracks) between controller and valve location.
- 3. Check all of reasons in Section B.
- Faulty solenoid. Turn off water supply. Switch solenoid with one from a nearby operational valve. If original valve works with second solenoid, replace original solenoid. (Install water-tight wire connections on all valves at this time to avoid future solenoid shorts and/ or failures.)
- 5. Controller not supplying power to valve/valves. Check fuse. If blown, replace fuse with same size. (Do not change sizes. A different size fuse will damage controller during operation and will void the warranty.) If fuse is OK, either use a volt/ohm meter to check controller output (24 VAC) at each terminal screw (station/valve connection) OR disconnect an operating solenoid from a valve and take it to the controller. Attach one wire to the "C" terminal (common/ground) and attach the other wire to the station which is not working. Activate the controller in manual start. The solenoid should click (pull the plunger up into the solenoid tube) and it may hum. (Continued on next page)

5. (Continued) If nothing happens, (and the controller is still under warranty) you should either return your controller to the store or call your installer. If it's no longer under warranty, you will need to purchase a new controller. Be sure to install water-tight connectors on your wiring and a surge protector (if you live in areas highly prone to lightning). This will help to avoid future problems.

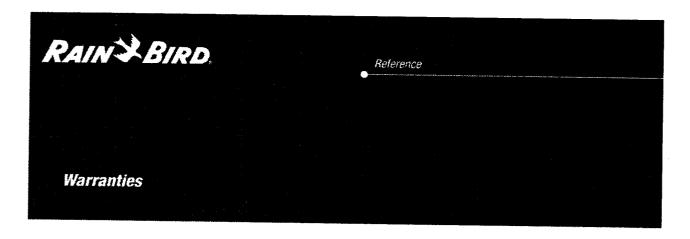






Customer Support Center ♦ 6640 S. Bonney Ave. ♦ Tucson, AZ 85706 1-800-RAIN-BIRD ♦ (520) 434-6289 FAX

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Rain Bird will repair or replace at no charge any Rain Bird professional product that fails in normal use within the warranty period stated below. You must return it to the dealer or distributor where you bought it. Product failures due to acts of God including without limitation, lightning and flooding, are not covered by this warranty.

This commitment to repair or replace is our sole and total warranty.

Implied warranties of merchantability and fitness, if applicable, are limited to one year from the date of sale.

We will not, under any circumstances be liable for incidental or consequential damages, no matter how they occur.

Falcon® 6504 Series rotors, the T-Bird® Series rotors, R-50 Series rotors, 7005 and 8005 rotors, 5000 Series rotors, 1800 Series popup spray heads, U-Series nozzles, brass MPR nozzles, A-8S and PA-8S-PRS shrub adapters and 1300 and 1400 bubblers, RSD-BEx and RSD-CEx - five years.

All other turf products - three years.

Golf Rotors: TG-25, DR, DH, DS and EAGLE™ series Golf rotors three years. Additionally, any TG-25, DR, DH, DS or EAGLE™ rotor sold and installed in conjunction with a Rain Bird swing joint - five years. Proof of concurrent installation is required.

Swing Joints - five years.

Brass And Plastic Valves: EFB and PE-B Remote Control Valves, and Brass Quick Coupling Valves and Keys - three years.

All other golf products - one year.

PC Dripline - three years

Rain Guns - three years (in agricultural applications only)

Disk Filters - one year

Pressure Gauges - one year

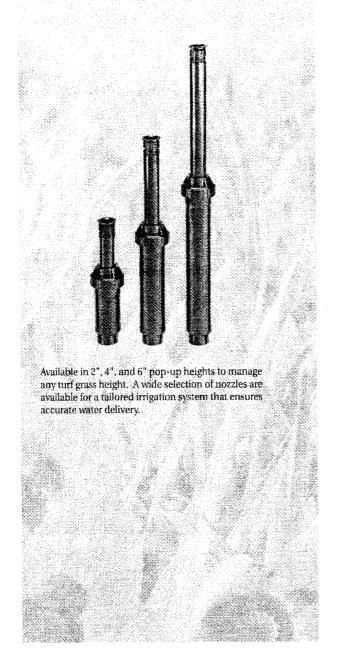
All other agricultural products - two years.

For more information, see your Rain Bird distributor or call 800-458-3005.

Irrigation Sprinklers - UNI-Spray by Rain Bird



The Right Choice in UNI-Spray[™] Series Spray Heads



With Rain Bird® UNI-Spray™ Series Spray Heads, you no longer need to have a green thumb to have a beautiful landscape. These dependable spray heads work like magic to meet all your yard's watering requirements. Whether they are used in a delicate flower bed or a large grass area, the UNI-Spray Series Spray Heads will do the job right.

Outstanding Features:

- Innovative design ensures even water distribution with no brown spots.
- Small exposed cover makes the spray head virtually invisible for more attractive landscapes.
- A pressure-activated wiper seal provides optimum pop-up and pop-down reliability, while reducing water waste.
- Optional Seal-A-Matic™ valve check prevents puddling and run-off that can erode a landscape.

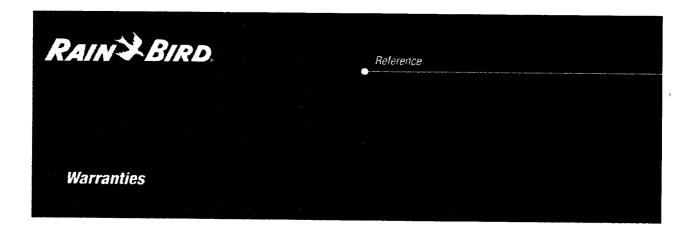
For customer information, call 1-800-247-3782 (U.S. only).

Rain Bird Sales, Inc. 970 West Sierra Madre Avenue Azusa, CA 91702 Phone: (826) 963-9311 Fax: (626) 812-3411

www.rainbird.com

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Plain Bird, Conserving More Than Water.

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Rain Bird will repair or replace at no charge any Rain Bird professional product that fails in normal use within the warranty period stated below. You must return it to the dealer or distributor where you bought it. Product failures due to acts of God including without limitation, lightning and flooding, are not covered by this warranty.

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All other turf products - three years.

Golf Rotors: TG-25, DR, DH, DS and EAGLE™ series Golf rotors three years. Additionally, any TG-25, DR, DH, DS or EAGLE™ rotor sold and installed in conjunction with a Rain Bird swing joint - five years. Proof of concurrent installation is required.

Swing Joints - five years.

Brass And Plastic Valves: EFB and PE-B Remote Control Valves, and Brass Quick Coupling Valves and Keys - three years.

All other golf products - one year.

PC Dripline - three years

Rain Guns - three years (in agricultural applications only)

Disk Filters - one year

Pressure Gauges - one year

All other agricultural products - two years.

For more information, see your Rain Bird distributor or call 800-458-3005.

Roofing - Eagle



LIFETIME TRANSFERABLE LIMITED PRODUCT WARRANTY



THIS WARRANTY COVERS STRUCTURAL INTEGRITY OF INDIVIDUAL ROOF TILES ONLY. EAGLE ROOFING PRODUCTS COMPANY CANNOT WARRANT INSTALLATION METHODS, MATERIALS OR LABOR PROVIDED BY OTHERS.

EAGLE Roofing Products Company ("Manufacturer"), subject to the terms of this entire instrument, warrants to the original registered consumer purchaser and the next owner throughout the duration of their ownership, that the EAGLE Roofing Product listed herein will not allow passage of water due to structural deterioration caused by normal exposure to the elements. Subsequent owner must notify Manufacturer within 90 days from date of sale by providing information requested on the Warranty Transfer Notice, attached, and forward same to the address shown. Manufacturer further reserves the right to inspect the premises prior to settlement of claim.

IN THE EVENT THIS WARRANTY CERTIFICATE HAS NOT BEEN PROPERLY REGISTERED, THE DURATION OF THIS EXPRESS LIMITED WARRANTY, INCLUDING THE WARRANTY FOR LABOR, SHALL BE LIMITED TO TWO (2) YEARS FROM THE DATE OF ORIGINAL INSTALLATION.

Within 90 days from the date of our inspection, EAGLE Roofing Products Company will provide to the registered Warranty holder, replacement tile for any tile that exhibits specified defects covered under this Warranty.

During the first twenty five year period following original installation, provided that all of the conditions of this Warranty are met, Manufacturer will pay for the labor to remove tiles with latent or concealed defects and to load and install replacement tiles. Manufacturer will also absorb the costs of freight, underlayment, nails and other necessary accessory materials required by local building codes.

Manufacturer will not pay replacement labor and associated costs per above where tiles are found to have exhibited patent or obvious defects prior to installation.

Except for Warranty expressed above, Manufacturer makes no warranty of any kind, whatsoever, express or implied, and all warranties of merchantability, fitness for a particular purpose, and other warranties of whatever kind, are hereby expressly disclaimed by Seller and excluded. Specific exclusions include color, cracking, chipping or surface delamination, defects or failure of other materials used as components of the roof or structure, installation not according to local building codes, damage to the tile caused by roof traffic or foreign objects falling on the roof, ice build-up, damage to tile or structure caused by hurricanes, tornadoes, earthquakes or other acts of God.

This limited Warranty is issued to the original consumer purchaser on whose structure the specific EAGLE Roofing Product listed below is installed, whether installed on a new or existing structure. This Warranty shall be transferable upon subsequent sale or transfer of the property listed herein by properly notifying Manufacturer. The Warranty shall automatically expire without such transfer.

EAGLE Roofing Products shall not be liable in any respect for any injury or damage to the structure upon which EAGLE Roofing Products have been applied, or to persons or property arising out of the use, intended use or application of said products, nor shall EAGLE Roofing Products be liable for any incidental or consequential damages or for expenses arising out of the use or installation of any EAGLE Roofing Product. All such damages and expenses are hereby excluded.

If the law of your state prohibits the exclusion of such damages and expenses, then such damages and expenses are hereby limited, but in no event shall the liability of EAGLE Roofing Products exceed the original cost of installation. Some states do not allow the exclusion or limitation of incidental or consequential damages, thus, the above limitation or exclusion may not apply to you.

This Warranty gives you specific legal rights, and you may have other rights which vary from state to state.

For further information concerning your Warranty, contact:

Director of Warranty Registration EAGLE Roofing Products Company 3546 North Riverside Avenue Rialto, CA 92377 (909) 355-7000

| NAME OF BUILDER | |
|------------------------------|--|
| NAME OF ROOFING CONTRACTOR | |
| DATE OF ROOFING INSTALLATION | |
| STYLE AND COLOR INSTALLED | |
| | |

OWNER INFORMATION

Thank you for choosing one of the EAGLE family of products for your roof. Incombustible, long-wearing tiles have for many centuries been the most popular type of roofing material in the world. Many tile roofs are still providing protection today on buildings in Europe and Asia as old as two thousand years.

You will not have to face the prospect of replacing a roofing product deteriorating from normal exposure to the sun, moisture and extreme temperature variations.

RECOMMENDATIONS:

EAGLE Roofing Products require no care whatsoever. Our recommendation is to stay off your roof. Take the following precautions to avoid possible damage:

- 1. Television and other antennas, air conditioners and Christmas decorations should be positioned so that installation and repairs can be made without going on the roof.
- 2. If it should become necessary to remove from your roof such objects as tree limbs, leaves or children's toys, try using a rake, long stick, lasso or other tool.
- 3. If you must walk on the roof wear soft-soled, non-slip shoes. Be careful, tiles can be slippery. Step only on the lower center of the tile. Secure a walkway of plywood, ladders, planks, etc., where heavy roof traffic is necessary.

COLOR:

EAGLE uses only the finest iron oxide coloring pigments in our manufacturing process. These pigments are classified as non-fading. Even though our coloring agents will not fade, the surface of your roof will usually appear somewhat lighter after continuous exposure to the elements. This occurs due to efflorescence (see below) or surface oxidation, the same process that dulls all exposed surfaces that cannot be regularly washed and polished, like your automobile.

Due to natural color differences of raw materials, slight color variation may occur.

EFFLORESCENCE:

Temporary light patterning may appear on darker tiles. This is caused by efflorescence and occurs naturally as seen on sidewalks, and brick walls when alkaline deposits gravitate to surfaces exposed to moisture. The surface of every EAGLE tile has been treated to minimize efflorescence. If it should occur on your roof, it will disappear completely after additional exposure to rain.

HAIL:

EAGLE tiles have been laboratory tested to simulate resistance to hail. The results of these tests indicate the ability to withstand hail "stones" of up to 1 1/2" in diameter without developing significant cracks. In rare cases where hail of larger diameter causes tile damage, individual broken tiles can easily be removed and quickly replaced. Most other types of roofing materials require complete replacement due to the inability to replace individually affected pieces. This is the reason many insurance companies offer lower rates to protect homes with tile roofs.

Should your EAGLE tile roof suffer hail damage, call the original installing contractor or call our Customer Services representative who will help find matching tiles and a qualified, local contractor. Be wary of hiring a transient "storm chaser" who may do more harm than good.

Should you ever have any questions about your EAGLE tile roof, please call our Customer Services Department at (909)355-7000.





Exterior

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Light Fixtures/Recessed Can - Progress



To: Whom it may concern

RE: Progress Lighting Limited Warranty - 1/03

Progress Products, when properly installed and under normal conditions of use, except as provided in a separate written agreement between seller and buyer, seller warrants its manufactured goods will conform to its catalogue specifications and be free from defects and deficiencies in workmanship and materials for a term of one (1) year from the date of sale of such goods to the end user as specified in sellers shipment documents for each product. Progress fan motors are warranted to the end user to be free of electrical and/or mechanical defects for a period of 15 years from the date of purchase. Pull chain switches, reverse switches and capacitors are warranted for a period of one year from the date of sale. Metal finishes, due to varying climatic conditions (includes pitting, rusting, tarnishing, peeling or corroding), are warranted for a period of one year from the date of sale. Warping of wooden or plastic fan blades is not covered by this warranty. This warranty excludes fluorescent ballasts and high intensity discharge (HID) components and buyer agrees to make all claims regarding defects or deficiencies therefore according to the warranty or the manufacturer thereof as its sole source of recourse or compensation. In event of a valid warranty claim, seller may repair or replace the returned goods according to its procedure. All other warranties, express or implied, are expressly disclaimed including but not limited to warranties of fitness or merchantability. Seller limits its liability for and buyer's remedies for all claims of all persons for losses or damages, to the fullest extent permitted by law, suffered by any of the foregoing, to the value of the cost of repair or replacement of any defective goods and no actual damages such as for lost profit, loss of production, property damage, special damages, claims of consequential or incidental damages, exemplary or punitive damages claimed by or through such injured party asserting such claims are compensable for breach of this warranty or any other breach whether asserted in contract or tort. Buyer shall not be entitled to repair or replacement except pursuant to a written warranty claim validated in writing by the seller. Any unauthorized return, repair, replacement, modification of product, or misuse of goods by buyer shall void the warranty. In no case does our warranty extend to anybody other than our customers, and no one is authorized to extend warranties or remedies on our behalf. Warranty claims must be in writing according to seller's procedures existing at the time of the claim and made within thirty (30) days of discovery of the defect, and within the warranty period of one year. Warranty claims should be sent to: Progress Lighting, P.O. Box 5704, Spartanburg, SC 29304-5704. Goods may be returned only after a return authorization number has been issued by seller's customer service department.

Sincerely,

Tim Powell Customer Service Manager (864) 699-1234

Smoke Alarm - BRK

USER'S MANUAL Smoke Alarms

AC Powered Ionization Smoke Alarm with Silence and Latching Features Model 9120

Input: 120V AC ~, 60 Hz, 0.04A

AC Powered Ionization Smoke Alarm with Battery Back-up, Silence and Latching Features

Model 9120B

Input: 120V AC ~, 60 Hz, 0.04A



Printed in Mexico M08-0134-001 K1 10/04



IMPORTANT! PLEASE READ CAREFULLY AND SAVE

This user's manual contains important information about your Smoke Alarm's operation. If you are installing the Smoke Alarm for use by others, you must leave this manual — or a copy of it — with the end user.

INTRODUCTION

Thank you for choosing BRK Brands, Inc. for your Smoke Alarm needs. You have purchased a state-of-the-art Smoke Alarm designed to provide you with early warning of a fire. Key features include:

Smart Technology designed to help reduce unwanted or nuisance slarms

Single Button Test/Silence eliminates confusion. Depending on what mode the alarm is in, pushing the button provides different functions such as testing the alarm, allencing the elarm, re-testing the alarm when in silence and clearing the Latching feature.

Latching Alerm Indicator easily identifies initiating alerm even after the alerm condition has subsided.

Perfect Mount System includes a gasketless base for easy installation and a new mounting bracket that keeps the elems secure over a wide rotation range to allow for perfect

Dust Cover is included to keep the alarm clean during construction.

Easy Installation/Maintenance features include a large opening in the mounting bracket for easy access to wring. A battery pull tab keeps the battery frieth until the home is occupied. A Side Load Battery Drawer allows for easy battery replacement without removing the alarm from the ceiling or wall (Model 9120B only).

Improved UV Resistance keeps the alarm from discoloring over time.

All Rights Reserved. © 2004 BRK Brands, Inc.
BRK Brands, Inc., 3901 Liberty Street Road, Aurora, IL 60504-8122
Consumer Affairs: (800) 323-9005 • www.brkelectronics.com • www.firstalert.com

All First Alort^o and BRIC^o Smoke Alarms comform to regulatory requirements, including UL217 and are designed to detect particles of combustion. Smoke particles of varying number and size are produced in all fires.

lonization technology is generally more sensitive than photoelectric technology at detecting small particles, which tend to be produced in greater amounts by flaming fires, which consume combustible materials rapidly and spread quickly. Sources of these fires may include paper burning in a wastebasket, or a grease fire in the kitchen.

Photoelectric technology is generally more sensitive then ionization technology at detecting large particles, which tend to be produced in greater amounts by smoldering fires, which may smolder for hours before bursting into flame. Sources of these fires may include cigarettes burning in couches or bedding.

| UNDERSTANDING THE INDICATOR LIGHTS AND ALARM HORN PATTERNS | | | |
|---|--|---|--|
| Condition | LED (Red or Green Lights) | Horn | |
| Normal Operation (AC Power) | Green LED ON; flashing Red LED once/ minute | No Audible Alarm | |
| Normal Operation (DC Power - 9120B only) | Green LED OFF; Red LED flashes once/minute | No Audible Alarm | |
| DURING TESTING | Red LED flashes once every second | Hom pattem: 3 beeps, pause, 3 beeps, pause | |
| LOW OR MISSING BATTERY (9120B only) | Red LED flasher once/minute | Horn "chirps" once/minute | |
| ALARM CONDITION Smoke Initiating Device | Red LED flashes rapidly on the unit that triggered the Alarm. | Hom pattern: 3 beeps, pause, 3 beeps, pause repeating on all Atarms | |
| ALARM CONDITION interconnect Alarm | Red LED on the other Alarms in an interconnected series will be OFF. | Hom pattern: 3 beeps, pause, 3 beeps, pause repeating on all Alarms | |
| N SILENCE MODE | Red LED flashes once every 10 seconds | Horn remains allent for up to 10 minutes. Hom will sound if amoke levels increase. | |
| "LATCHING" ALARM NDICATOR | Green LED ON for 2 seconds/OFF for 2 seconds, repeatedly until reset, on initiating unit(a). | Horn remains slient | |

WEEKLY TESTING

AWARNING!

As WEARTHTETERS.

NEVER use an open fiame of any kind to test this unit. You might accidentally demage or set fire to the unit or to your home. The bulk-in test switch accurately tests the unit's operation as required by Underwriters Leborstories, Inc. (ILL). If you choose to use an serosol smoke product to test the Smoke Alarm, be certain to use one that has been Listed to Underwriters Laborstories, inc. Safety Standards, and use it only as directed. Use of non-UL Listed products or improper use of UL Listed products may affect the Smoke Alarm's sensitivity.

ACAUTION

DO NOT stand close to the Alarm when the horn is sounding. Exposure at close range may be harmful to your hearing. When testing, step away when horn starts sounding.

may be narrow to your reservey. When testing, susp away when room everts southwest. It is important to test this unit every week to make sure it is working properly. Using the test button is the recommended way to test this Smoke Alarm. Press and hold the test button on the cover of the unit until the alarm sounds (the unit may continue to alarm for a few seconds after you release the button). If it does not alarm, reske sure the until it receiving power and test it again. If it still does not alarm, replace it immediately. During testing, you will hear a loud, repeating horn pattern: 3 beeps, peuse, 3 beeps, peuse.

When testing a series of interconnected units you must test each unit individually. Make sure all units alarm when each one is tested.

REGULAR MAINTENANCE

AWARNING!

Use only the replacement batteries listed below. The unit may not operate properly with other batteries. Never use rechargeable batteries since they may not provide a constant charge.

This unit has been designed to be as maintenance-free as possible, but there are a few simple things you must do to keep it working properly.

- Test it at least once a week.
- Clean the Smoke Alarm at least once a month; gently vecuum the outside of the Smoke Alarm using your household vacuum's aoft brush attachment. Test the Smoke Alarm. Never use water, cleaners or solvents since they may damage the unit.
- If the Smoke Alarm becomes contaminated by excessive dirt, dust and/or grime, and cannot be cleaned to avoid unwanted alarms, replace the unit immediately.
- Relocate the unit if it sounds frequent unwanted slarms. See "Locations To Avoid For Smoke Alarms" for details.
- When the battery back-up becomes weak, the Smoke Alarm will "chirp" about once a minute (the low battery warning). This warning should last 7 days, but you should replace the battery immediately to continue your protection.

Choosing a replacement bettery:

Your Smoke Alarm requires one standard 9V battery. The following batteries are ecceptable as replacements: Duracell #MN1804, (Litra) #MX1804; Eveready (Energizer) #522, Eveready (Energizer) #1222. You may also use a Lithium battery like the Ultralife U6VL-J for longer

aru prevent nazarosus asuseons; 1) Use enoiding materials properly, st. 2) Keep matches or lighters away from children; 3) Slore flammable romatches or lighters away from children; 3) Slore flammable romatches in good condition and don't crounts; 5) Keep sectores, barbous grills, fireplaces and chirmeys grease circuits; 5) Keep stores, barbous grills, fireplaces and chirmeys grease. Never leave anything cooking on the store unattended; 7) Keep portable flames, like candles, away from flammable materials; 8) Don't let rubbish

p slarms clean, and test them weatly. Raplace slarms immediately if they are not work-properly. Smoke Alarms that do not work cannot alert you to a fire. Keap at least one drig fire extinguisher on every floor, and an additional one in the kitchen. Have fire upe ladders or other reliable means of secape from an upper floor in case stairs are

BEFORE YOU INSTALL THIS SMOKE ALARI

ortant! Read "Recommended Locations for Smoke Alarms" and "Locations to Avoid for kee Alarms" before beginning. This unit monitors the air, and when smoke reaches it sing chamber, it earms. It can give you more time to escape before fire apreads. This can ONLY give an early warning of developing time it is installed, maintained and fed where smoke can reach it, and where all residents can hear it, as described in this ual. This unit will not sense gas, heat, or fame. It cannot prevent or extinguish fires.

Understand The Different Type of Smoke Alarms

Battery powered or electrical? Different Smoke Alarms provide different types of prosection. See "About Smoke Alarms" for details.

Know Where To Install Your Smoke Alarms

Fire Salety Professionals recommend at least one Smoke Alarm on every level of your home, in every bedroom, and in every bedroom hallway or separate sleeping area. See "Recommended Locations For Smoke Alarms" and "Locations To Avoid For Smoke Alarms for details.

Know What Smoke Alarms Can help alert you to fire, giving you precious time to eccape. It can only sound an alarm once smoke reaches the sensor. See "Limitations of Smoke Alarms" for details.

ck Your Local Building Codes

This Smoke Alarm is designed to be used in a typical single-family home. It alone will not meet requirements for boarding houses, spertment buildings, hotels or motels. See "Special Compliance Considerations" for details.

ADANGER!

- ELECTRICAL SHOCK HAZARD. Turn off the power to the area where the Smoka Alarm is installed before removing it from the mounting bracket. Failure to turn off the power first may result in serious electrical shock, injury or death. WARNING is unit will not alert hearing hypeired residents. It is recommended that you tall apacial units which use devices like flashing strobe lights to siert hearing seized residents.
- talilation of this unit must conform to the electrical codes in your area; Article of NFPA 79 (NEC), NFPA 72, NFPA 101; ICC; 68C (SBCC); UBC (CBO); NBC (CDO); NBC (CBO); NBC (C

- This Smoke Alarm must have AC or bettery power to operate. If the AC power falls, bettery back-up will allow the alarm to sound for at least 4 minutes. If AC power falls and the bettery is weak, probedion should leaf for up to 7 days. If AC power falls and the bettery is dead or missing, the alarm cannot operate. Never disconnect the power from an AC powered unit to stop an unwested alarm. Doing so will deable the unit and remove your protection. In the case of a true unwanted alarm open a window or fan the smoke away from the unit. The alarm will reset automatically when it returns to normal operation. Never remove the betteries from a battery operated unit to stop an unwanted alarm (caused by cooking amorks, atc.). Instead open a window or fan the smoke away from the unit. The alarm will reset automatically.

ACAUTION!

- meet this unit ONLY to other competible units. See "How To install This oke Alarm" for details. Do not connect it to any other type of siarm or tiliary device. Commoting anything else to this unit may damage it or prevent
- The bettary compartment resists closing unless a bettary is installed. This warns you the unit will not operate under DC power without a bettery.
- Do not paint over the unit. Paint may dog the openings to the sensing chamber and prevent the unit from operating properly.

LIMITATIONS OF SMOKE ALARMS

Smoke Alarma have played a key role in reducing deeths resulting from home fires worldwide. However, like any warning device, Smoke Alarma can only work if they are properly located, installed, and maintained, and if smoke reaches the Alarma. They are not foolproof.

installed, and meintained, and if smoke reaches the Alarms. They are not foolproof. Smoke eleme may not welken all individuals. Practice the eacape pian at least twice a year, making sure that everyone is involved – from lide to grandparents. Allow children to master fire escape planning and practice before holding a fire drill at night when they are steeping. If children or others do not readily waten to the sound of the emoke elem, or if there are infants or family members with mobility limitations, make sure that comeons is assigned to assist them in fire drill and in the event of an emergency. It is recommended that you hold a fire drill while family members are steeping in order to determine their response to the sound of the smoke alarm while alseping and to determine whether they may need assistance in the event of an emergency.

to the sound of the smoke alarm while alsoping and to determine whether they have near assistance in the event of an emergency.

Smoke Alarms cannot work without power. Battery operated units cannot work if the batteries are missing, disconnected or deed, if the wrong type of batteries are used, or if the batteries are not installed connectly. AC units cannot work if the AC power is cut off for any reason (open fuse or circuit breaker, failure along a power line or at a power station, electrical fire that burns the electrical wires, etc.). If you are concerned about the limitations of battery or AC reveals install truth turns of smith. (open was or circum pressure, ram burns the electrical wires, etc.). It power, install both types of units

power, restant point types of units.

Smoke Alarms cannot detect fires if the emoke does not reach the Alarms. Smoke from fires in chimneys or walls, on roofs, or on the other side of closed doors may not reach the sensing chamber and set off the Alarm. That is why one unit should be installed inside each bedroom or sleeping area—especially if bedroom or sleeping area doors are closed at night-and in the hallway between them.

Smoke Alarma was and distant fine on another finant or area of the despiting. For example

and in the halfway between them.

Smoke Alarma may not detect fire on another floor or area of the dwelling. For example, a stand-alone unit on the second floor may not detect smoke from a basement fire until the fire spreads. This may not give you enough time to escape safely. That is why recommended minimum protection is at least one unit in every sleeping area, and every bedroom on every level of your dwelling. Even with a unit on every floor, stand-alone units may not provide as much protection as interconnected units, especially if the fire starts in a remote area. Some safety experts recommend installing interconnected AC powered units with battery back-up (see "About Smoke Alarma") or professional fire detection systems, so if one unit senses smoke, all units alarm when one detects smoke.

Smoke Alarms may not be heard. Though the alarm horn in this unit meets or exceeds current standards, it may not be heard it: 1) the unit is located outside a closed or partially closed door, 2) residents recently consumed alcohol or drugs, 3) the Alarm is drowned out by noise from stero. Ty, traffic, air conditioner or other appliances, 4) residents are hearing impaired or sound sleepers. Special purpose units, like those with visual and audible alarms, should be installed for hearing impaired residents.

instated for nearing impaired residents.

Smoke Alarma may not have time to elarm before the fire itself causes demage, injury, or death, since amoke from some fires may not reach the unit immediately. Examples of this include persons amoking in bed, children playing with matches, or fires caused by violent explosions resulting from escaping gas.

By violent explosions resulting from escaping gas.

Smoke Alarms are not footpreof. Like any electronic device, Smoke Alarms are made of components that can wear out or fall at any time. You must test the unit weekly to ensure you continued protection. Smoke Alarms cannot prevent or extinguish fires. They are not a substitute for the continued protection. tute for property or life insura

Smoke Alarms have a limited tile. The unit should be replaced immediately if it is not operating properly. You should always replace a Smoke Alarm after 10 years from date of purchase. Write the purchase date on the space provided on back of unit.

LIMITED WARRANTY

LIMITED WARRANTY

BRK Brands, Inc., ("BRK") the maker of BRK" brand and First Alert* brand products, warrants that for a period of ten years from the date of purchase, this product will be free from defects in material and workmanship. BRK, at its option, will repair or replace this product or any component of the product found to be defective during the warranty period. Replacement will be made with a new or remanufactured product or component. If the product is no longer evaluable, replacement may be made with a similar product of equal or greater value. This is your suckusive warranty.

This warranty is valid for the original retail purchaser from the date of initial retail purchase and is not transferable. Keep the original sales receipt. Proof of purchase is required to obtain warranty performance. BRK dealers, service centers, or retail stores selling BRK products do not have the right to after, modify or any way change the terms and conditions of this warranty.

norm to use warenry. This warranty does not cover normal wear of parts or damage resulting from any of the following: negligent use or misuse of the product, use on improper voltage or current, use contrary to the operating instructions, disassembly, repair or attention by anyone other than BRIC or an authorized service center. Further, the warranty does not cover Acts of God, such as fire, flood, hunricanse and tornadoes or any batteries that are included with this mass.

this unit.

BRK shall not be liable for any incidental or consequential damages caused by the breach of any express or implied warranty. Except to the extent prohibited by applicable law, any implied warranty of merchantability or fitness for a particular purpose is limited in duration to the duration of the above warranty. Some states, provinces or jurisdictions do not allow the exclusion or limitation of incidental or consequential damages or limitations on how long an implied warranty lasts, so the above limitations or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights that vary from state to state or province to province.

How to Obtain Warranty Service

Services if service is required, do not return the product to your retailer. In order to obtain warranty service, contact the Consumer Affairs Division at 1-800-323-9005, 7:30 AM -5:00 PM Central Standard Time, Monday through Friday. To assist us in serving you, please have the model number and date of purchase available when calling. 303 Nelson Avenue, Neosho, MO 64850-8806.

Bettery: BRK Brands, Inc. make no warranty, express or implied, written or oral, including that of merchantability or fitness for any particular purpose with respect to bettery.

BRIK ^a is a registered trademark of BRIK Brands, Inc. First Alert* is a registered trademark of the First Alert Trust.

Printed in Mexico M08-0134-001 K1 10/04

Door Chimes - NuTone



INSTALLATION INSTRUCTIONS
READ & SAVE THESE
INSTRUCTIONS!

TWO-NOTE SURFACE-MOUNTED DOOR CHIMES

PLANNING

- Your NuTone Door Chime is designed for two-door operation.
- If the home is multiple-level or large ranch style, two or more chimes should be used to provide adequate coverage.
- Handle the door chime carefully, as you would any precision instrument.

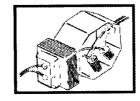
WIRING

BE SURE HOUSE POWER IS TURNED OFF WHEN WIRING THE TRANSFORMER. WIRING CONNECTIONS MUST COMPLY WITH LOCAL OR NATIONAL WIRING CODES.

- For a single installation, use NuTone Model 515T or 101T Transformer.
- For two or more chimes, use NuTone Model 105T or 301T Transformer.

NOTE: When fastening chime wiring to wall studs and ceiling joists, care must be taken to avoid possible "shorts" that might be created by allowing staples or clips to cut through the protective wiring insulation.

Mount the transformer to a convenient junction box (attic location is not recommended) or circuit breaker box. Connect house power leads to transformer leads.



Refer to Figure 1 for single chime installation or to Figure 2 for multiple chime installation.

Run 2 conductor 18-22 gauge wire from transformer and the pushbutton(s) to chime location(s). Bring the wires through the wiring hole in the chime baseplate(s) and fasten the baseplate(s) to the wall though the mounting holes with the screws provided. Connect the transformer and the pushbutton wires to the chime terminal board(s).

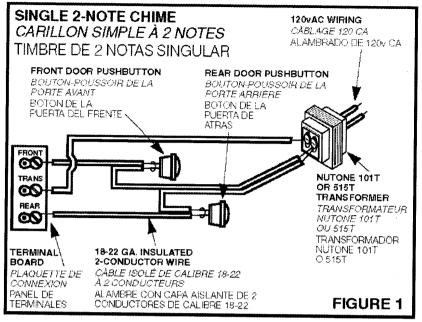
NOTE: Upon completion of installation, if the chime does not operate properly, check the pushbutton(s) for poor contact or loose connections. Be certain wires are not touching the tone bars.

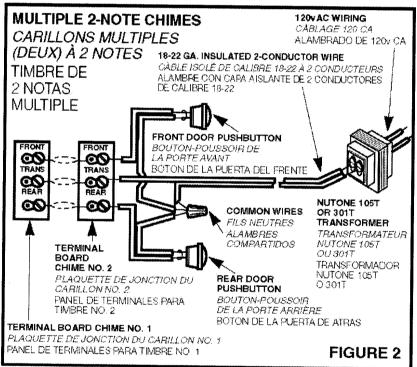
TUBE INSTALLATION (When applicable)

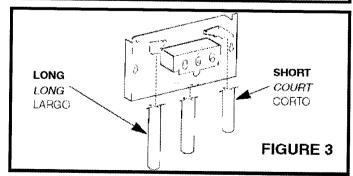
Refer to Figure 3. Hang tubes onto hanger bracket hooks so that the longest tube is at the left and the shortest at the right.

MOUNTING COVER

Install the chime cover over the baseplate.







MAINTENANCE INSTRUCTIONS

If chime plungers should ever become "sluggish" in their movement, clean plungers with a nonflammable cleaning fluid and wipe dry.

CAUTION: NEVER OIL CHIME PLUNGERS.

REPLACEMENT PARTS OR SERVICE

Contact your local Authorized NuTone Parts Outlet or Service Center. If you are unable to locate the facility, write NuTone Inc., 4820 Red Bank Road, Cincinnati, Ohio 45227-1599.

Attention: Department of National Field Service.

NuTone

One Year Limited Warranty

WARRANTY OWNER: NuTone warrants to the original consumer purchaser of its products that such products will be free from defects in materials or workmanship for a period of one (1) year from the date of original purchase. THERE ARE NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

During this one year period, NuTone will, at its option, repair of replace, without charge, any product or part which is found to be defective under normal use and service. THIS WARRANTY DOES NOT EXTEND TO FLUORESCENT LAMP STARTERS OR TUBES, FILTERS, DUCT, ROOF CAPS, WALL CAPS AND OTHER ACCESSORIES FOR DUCTING. This warranty does not cover (a) normal maintenance and service or (b) any products or parts which have been subject to misuse, negligence, accident, improper maintenance or repair (other than by NuTone), faulty installation or installation contrary to recommended installation instructions.

The duration of any implied warranty is limited to the one year period as specified for the express warranty. Some states do not allow limitation on how long an implied warranty lasts, so the above limitation may not apply to you.

NUTONE'S OBLIGATION TO REPAIR OR REPLACE, AT NUTONE'S OPTION, SHALL BE THE PURCHASER'S SOLE AND EXCLUSIVE REMEDY UNDER THIS WARRANTY. NUTONE SHALL NOT BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES ARISING OUT OF OR IN CONNECTION WITH PRODUCT USE OR PERFORMANCE. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state. This warranty supersedes all prior warranties.

WARRANTY SERVICE: To qualify for warranty service, you must (a) notify NuTone at the address stated below or telephone 1/800-543-8687, (b) give the model number and part identification and (c) describe the nature of any defect in the product or part. At the time of requesting warranty service, you must present evidence of the original purchase date.

Date of Installation

Builder or Installer

Model No. and Product Description

IF YOU NEED ASSISTANCE OR SERVICE:

For the location of your nearest NuTone Independent Authorized Service Center

Residents of the contiguous United States Dial Free 1-800-543-8687
Please be prepared to provide:

Residents of Alaska or Hawaii should write to: NuTone Inc. Attn: Department of National Field Service, 4820 Red Bank Road, Cincinnati Ohio 45227-1599.

Residents of Canada should write to: Broan-NiuTone Canada, 6300 Tomken Road, Mississauga, Ontario, Canada L5T 1H9

Rev. 03/2001

Receptacles - Leviton

LIMITED ONE YEAR WARRANTY AND EXCLUSIONS

Leviton warrants to the original consumer purchaser and not for the benefit of anyone else that this product at the time of its sale by Leviton is free of defects in materials and workmanship under normal and proper use for one year from the purchase date. Leviton's only obligation is to correct such defects by repair or replacement, at its option, if within such one year period the product is returned prepaid, with proof of purchase date, and a description of the problem to Leviton Manufacturing Co., Inc., Att: Quality Assurance Department, 59-25 Little Neck Parkway, Little Neck, New York 11362-2591. This warranty excludes and there is disclaimed liability for labor for removal of this product or reinstallation. This warranty is void if this product is installed improperly or in an improper environment, overloaded, misused, opened, abused, or attered in any manner, or is not used under normal operating conditions or not in accordance with any labels or instructions. There are no other or implied warranties of any kind, including merchantability and fitness for a particular purpose, but if any implied warranty is required by the applicable jurisdiction, the duration of any such implied warranty, including merchantability and fitness for a particular purpose, is limited to one year. Leviton is not liable for incidental, indirect, special, or consequential damages. including without limitation, damage to, or loss of use of, any equipment, lost sales or profits or delay or failure to perform this warranty obligation. The remedies provided herein are the exclusive remedies under this warranty, whether based on contract, fort or otherwise.

Panels & Breakers - Square D

Square D Residential Products Limited Warranty

Square D Load Center Branch Circuit Breakers

Square D warrants its branch circuit breakers to be free from defects in material and workmanship under normal care and proper usage in a residential installation, for the lifetime of the load center in which it is installed. If the circuit breaker lails within the warranty period because of a defect in material or workmanship, Square D will replace the defective breaker free of charge upon following the notice procedures below and return of the product to place of purchase.

II. Square D Single Phase Load Centers and Combination Service Entrance Devices

Square D warrants its single phase load centers and combination service entrance devices to be free from defects in material and workmanship, under normal care and proper usage in a residential installation, for a period of 10 years from the date of installation, when used with Square D circuit breakers described in Section I. If the product falls within the warranty period because of a defect in material or workmanship, Square D will, at its option, repair or replace the defective part or parts upon following the notice procedures below and return of product to place of purchase.

III. Additional information

Notice requirements and limitations applicable to Square D warranties are:

- Square D must be given prompt written notice of any defect or failure of any product covered by the warranty.
- B. Any product returned under this warranty, if shipped, must be sent freight costs prepaid.
 Square D will deliver repaired or replaced products to buyer, freight costs prepaid. Repaired or replaced products shall be warranted for the unexpired portion of the original warranty period.
- C. Any warranties granted or liabilities assumed hereunder will not apply to products that have been damaged, altered, repaired or operated otherwise than in conformity within the requirements for sale operation and maintenance. This warranty does not include costs or reimbursement for labor.
- D. All Square D circuit breaker, load center, and combination service entrance device warranties are void if products are used with any UL Classified circuit breaker or any circuit breaker other than the Square D circuit breakers marked on the load center or combination service entrance device label or wiring diagram.
- E. THERE ARE NO OTHER WARRANTIES WHICH EXTEND BEYOND THOSE EXPRESSLY SET FORTH HEREIN AND THIS WARRANTY AND SQUARE D'S OBLIGATIONS AND LIABILITIES HEREUNDER ARE IN LIEU OF, AND SQUARE D DISCLAIMS ALL OTHER WARRANTIES AND GUARANTEES AND ALL OTHER LIABILITIES THEREFORE EXPRESS OR IMPLIED, ARISING BY LAW OR OTHERWISE, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT WILL SQUARE D BE LIABLE FOR ANY DAMAGES, EITHER DIRECT, INCIDENTAL, CONSEQUENTIAL OR OTHERWISE.
- F. With respect to products purchased by consumers of the United States for personal use, the implied warranties, including but not limited to the warranties of merchantability and of fitness for a particular purpose, are not excluded, but limited to the duration of the applicable warranty period. Some states do not allow limitations on the duration of an implied warranty, so the above limitation may not apply to buyer. Similarly, some states do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusion or limitation may not apply to buyer. This warranty gives buyer specific legal rights, and buyer may also have other rights which may vary from state to state.
- G. This warranty covers residential use of Square D load center and circuit breaker products and excludes any commercial applications.
- H. Inquiries may be directed to Square D Company, 1415 S. Roselle Road, Palatine, Illinois, 60067, (708) 397-2600, Weekdays between the hours of 8 a.m. and 5 p.m.



Switches & Outlets - Decora by Leviton

Decora Warranties

All Hospital Grade, Industrial Specification Grade and Commercial Specification Grade Decora devices are backed by Leviton's Limited Ten-Year Warranty. All other Decora Devices are backed by Leviton's Limited Two-Year Warranty.

Decora Home Controls Warranty

All Decora Home Controls Powerline Carrier Components are backed by Leviton's Limited Two-Year Warranty for Residential Installations Only. All Decora Home Controls are UL Listed.







Leviton Manufacturing Co., Inc.

59-25 Little Neck Parkway, Little Neck, NY 11362-2591 Telephone: 1-800-323-8920 • FAX: 1-800-832-9538

Tech Line (8:30AM-6:00PM E.S.T. Monday-Friday): 1-800-824-3005

Leviton Manufacturing of Canada, Ltd.

165 Hymus Boulevard, Pointe Claire, Quebec H9R 1E9 Telephone: 1-800-469-7890 • FAX: 1-800-563-1853

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General Arista 54-A Col. Argentina, Mexico D.F., C.P. 11270

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Visit Leviton's Web site at: www.leviton.com

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Ceiling Fans - Craftmade

Common Problems

Problem A: Fan Will not Start

Remedies:

- 1. Check fuse or circuit breaker and replace if necessary
- 2. Turn off electrical power and check all wire connectors.
- 3. Check on/off TCS and wall control selector switch. See operation instructions.

Problem B: Fan is Excessively Noisy

Remedies:

- 1. Check that all screws in fan assembly are tight and properly seated.
- 2. Check to make sure mounting bracket is installed properly.
- 3. Check to make sure light kit and glass reinstalled properly and tight.
- 4. If wall control is used, insure the wall control is not a transformer or a variable speed type.

Problem C: Fan Wobbles

Remedies:

- 1. Check that all blades are screwed firmly into blade holders.
- 2. Check that all blade holders are screwed firmly into motor.
- 3. Check the weight of blades. All our blades are weighed on electronic scales. The weight is marked on the reverse side of the fan blade near the motor end. All of the blades should be the same weight to prevent fan from wobbling.
- 4. A balancing kit is enclosed if needed.

Weight:

The weight of the complete fan, including assembly hardware is shown in chart.

LIMITED WARRANTY

This Craftinede Coiling Fan is warranted against defects in workmanship and materials for one year from date of sale, except for motor which is warranted against defects in workmanship and materials for 30 years. This warranty does not apply to damage from accident, misuse, or attention, nor where the connected voltage is more than 3% above the nameplate voltage, nor to equipment improperly installed or wired or maintained in violation of the Owner's Manual. This warranty is valid only in the tifty states of the United States. No other written or oral warranty applies. No employee, again, dealer or other person is authorized to give any warrantees on behalf of Craftmade.

The customer shall be responsible for all costs incurred in the removal or roinstellation and shipping of the product for rapairs. Within the limitations of this warranty, independing units should be returned to the Craftmade Service Center, and we will repair or replace, at our option, at no charge to you with return freight poid by Craftmade it is agreed first such repair or replacement is the exclusive remoty available from Craftmade and that Craftmade is NOT RESPONSIBLE FOR DAMAGES OF ANY KIND, INCLUDING INCIDENTAL AND CONSEQUENTIAL DAMAGE. Some status do not allow the exclusion of limitation of incidental or consequential damages at the above exclusion or limitation may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state. Marchandian returned to the factory must be accompanied by a return authorization and service identification tog both available, from the below location. When requesting return authorization, include all model numbers shown on the product.

Service Center Craftmade International, Inc. 650 S. Royal Lane, Coppell, TX. 75019-1037

| Date PurchanedModel No | - |
|---|---------------|
| Where Purchased (Store Name) | |
| Store Address Zip | |
| Please detach and korp this form for your records. Return the warranty registration card below immediately, | |

Heat Pump - Carrier

A FEW WORDS ABOUT YOUR NEW AIR CONDITIONER

Thank you for choosing Carrier! You can feel confident in your selection because the same pride in craftsmanship and engineering knowledge that went into Carrier equipment installed in the Astrodome in Texas, the Sistine Chapel in Rome, the United States Capitol's halls of Congress and thousands of other installations worldwide has gone into the construction of your unit.

One of the principal advantages of owning a Carrier room air conditioner with electric heat is that the unit heats AND cools, so it can be used year-round!

While cooling, your new Carrier unit also filters and dehumidifies. In cold weather, the unit gently heats and circulates air through the room. Carrier room air conditioners with electric heat quietly give you maximum year-round comfort.

This Owner's Guide will supply you with all the information you need for installing, operating and maintaining your new unit. Take a few moments to discover how to get the most in cooling comfort and economic operation from your new Carrier room air conditioner.

SOME SUGGESTIONS

- 1. To avoid installation difficulties, read instructions completely before starting. This publication contains information pertinent to the installation and operation of your new room air conditioner.
- This unit can be installed in a double-hung window or through a wall. For both installations, you must first remove the chassis from the casing, install the casing first and then reinsert the chassis.

A CAUTION

Coil fins on chassis are sharp and chassis is heavy. Chassis removal can cause personal injury. NOTE: For heating units an additional window installation accessory kit must be ordered separately. Contact your local Carrier dealer.

- 3. When possible, install unit on a shaded side of the house or building.
- 4. Make sure that wall mounting area (or window, if window installation is chosen) is structurally sound enough to support the unit.
- 5. Room air conditioners are designed to fit easily into standard double-hung windows. However, some window frame design variations require modification to the window for safe, proper installation. If assistance is needed, please call your local Carrier Distributor. If there is no distributor in your area, call 1-800-CARRIER (227-7437).

ELECTRICAL DATA

- 1. All wiring must comply with local and national electrical codes. All wiring must be installed by qualified and skilled electricians. If you have any questions regarding the following instructions, contact a qualified electrician.
- Check available power supply and resolve any household wiring problems BEFORE installing and operating this unit.
- 3. An individual branch circuit and single receptacle used only for this air conditioner, must be available. See Table 1 for suggested wire sizes for individual branch circuit.
- 4. For your safety and protection, this unit is grounded through the power cord plug when plugged into a matching wall outlet. If you are not sure whether your wall outlet is properly grounded, please consult a qualified electrician.
- The wall outlet you select must match the plug on the unit power cord, and must be within reach of the installed unit.

NOTE: Power cord is 55 in. long and extends from bottom of control panel. See Step 24 if power cord must be relocated to opposite side of unit. Do NOT use a plug adapter or extension cord. See Table 2 for receptacle and fuse information.

6. Follow fuse specifications indicated on unit nameplate. See Table 2. Nameplate is located above unit control panel inside the air discharge section. For clear access to nameplate, front grille must be removed as described on page 6.

NOTE: Unit model/catalog number, service/discrete number, and serial number can be found on the nameplate. When calling for information and sevice, be sure to provide the service/discrete number.

| TABLE 1 SUGGESTED INDIVIDUAL BRANCH CIRCUIT | | | |
|---|---------------|--|--|
| NAMEPLATE AMPS | AWG WIRE SIZE | | |
| 5.0 to 12 | 14 | | |
| 12.1 to 16 | 12 | | |
| 16.1 to 24 | 10 | | |

AWG-American Wire Gage *Based on copper wire at 60 C temperature rating.

| TABLE 2 | | | | | | |
|---|------|------|----|-----------|----|--|
| RECEPTACLE AND FUSE TYPES | | | | | | |
| RATED VOLTS | 125 | | | 250 | | |
| AMPS | 15 | 20 | 15 | 20 | 30 | |
| WALL OUTLET | | | | | | |
| FUSE SIZE | 15 | 20* | 15 | 20* | 30 | |
| TIME DELAY FUSE (or Circuit Breaker) | Plug | Plug | | Cartridge |) | |

^{*}May be used for 15-amp applications if fused for 15 amp.

CONTROL PANEL AND OPERATING INSTRUCTIONS

Control Panel is behind control panel door. To open, use finger tab to swing door downward.

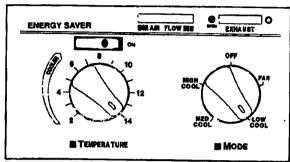


Fig. 1A - Cooling Only Model (XC)

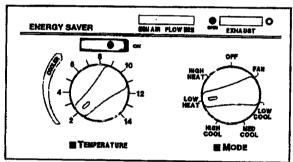


Fig. 1B - Heat Pump Model (XQ)/Heat Cool Model (XH)

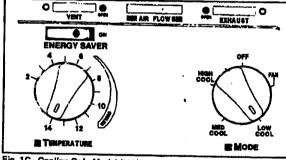


Fig. 1C - Cooling Only Model (YC)

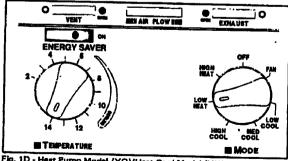


Fig. 1D - Heat Pump Model (YQ)/Heat Cool Model (YH)

OFF

When Mode dial is turned OFF, unit will NOT operate.

When leaving your home or office for a period of time during which you do not wish the unit to operate, be sure mode dial is set at OFF.

If you turn unit off, allow two minutes before turning unit back on.

Set mode control dial to FAN. This will provide air circulation WITHOUT cooling.

NOTE: If unit was operating in cooling mode prior to the fan-only setting, allow 2 minutes before switching back to a cooling mode.

LOW COOL, MED COOL, HIGH COOL

Choose the cooling setting you want simply by rotating mode dial to appropriate setting. Use the following as a guide for choosing cooling setting: Low Cool: Provides minimum air circulation with maximum dehumidification.

Med Cool: Provides increased air circulation.
High Cool: Provides maximum cooling. Recomended for quick cooling or for extremely hat days. Once room is cooled, manufacturer suggests switching to a lower cooling setting. See Figure 1A to 1D.

LOW HEAT. HIGH HEAT

Use the following as a guide for choosing heating setting:

Low Heat: Recommended for mildly chilly days and for nighttime use.

High Heat: Provides maximum heating. Recommended for sudden temperature drops and extended heating needs. See Figure 1B and 1D.

TEMPERATURE

Set thermostat dial between 2 (warmer) and 14 (cooler) to obtain the desired comfort level. This dial has no effect on fan speed.

AIR EXCHANGE

Your Carrier unit is equipped with an exhaust air exchange system.

Exhaust: Expels stale, smoky or odor-laden air from the room to the outdoors.

For system operation, move exhaust lever to the left, and turn mode dial to FAN setting.

When air exchange is completed, return to normal cooling by moving the exhaust lever to the right, and rotating mode dial from FAN to desired setting.

NOTE: Exhaust usage is not recommended during a cooling mode because it will exhaust cooled air out of the room.

REMEMBER: Lever to the left opens exhaust system. Lever to the right closes exhaust system.



Vent: Model YQ, YC and YH are also equipped with a vent air exchange system. Vent draws outside air into the room.

For vent system operation, move vent lever to the right, and turn mode dial to FAN setting.

When air exchange is completed, return to normal cooling or heating by moving vent lever to the left, and rotating mode dial from FAN to desired setting.

NOTE: Vent usage is not recommended during a cooling or heating mode, because it will vent cold or warm air into the room when it is not wanted.



AIR DIRECTION

Your unit has an AIR FLOW control feature allowing vertical air deflectors to move from left to right for better air distribution around room. The vertical deflectors are adjusted manually. Two sets of horizontal air deflectors are adjusted manually to direct air upward or downward. If lever is moved to the left, air flows to the right. If lever is moved to the right, air flows to the left.



ENERGY SAVER



ENERGY SAVER fan cycle switch has two modes:

ON: This setting lets fan cycle on and off with com-

pressor during cooling. Fan stops when thermostat setting is satisfied. This mode may result in longer unit off time and wider variations of room temperature and humidity.

OFF: This setting allows continuous fan function, circulating air even when unit's compressor has cycled off and thermostat setting has been reached. This mode is recommended for maximum comfort during cooling operation.

ENERGY-SAVING TIPS

 Select thermostat setting that suits your comfort needs and leave thermostat in that chosen setting. 2. Keep unit filter clean. Normally filter should be cleaned every 30 days. Filter removes airbome particles. More frequent cleaning may be necessary depending on indoor air quality. To remove

Place your fingers inside the openings on both sides of the filter on bottom of filter frame. See Fig. 2. Press fingers inward toward the center, while pulling filter down and out. To replace filter, simply reverse the procedure.

Carefully vacuum or wash by hand in warm water. Dry thoroughly and replace filter by sliding it upward behind front grille.

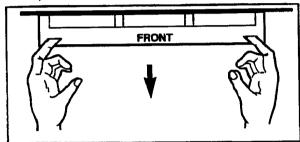


Fig. 2 - Removing Filter

- Use drapes, curtains, or shades to keep direct sunlight from heating room.
- 4. Do not obstruct front of unit.
- 5. When outdoor temperatures are cool enough, use FAN control in conjunction with VENT control to bring cool air outside air into the room. This uses less electricity than when operating unit on Low, Medium, or High Cool.
- 6. Maximum cooling efficiency is achieved when vent and exhaust systems are off. Check to make sure vent and exhaust controls are not on while unit is cooling. Exhaust lever moved to the right closes the exhaust system. Vent lever moved to the left closes the vent system.
- 7. Start your air conditioner before outdoor temperature, cooking heat, or gatherings of people make room hot and uncomfortable. This avoids initial period of discomfort while unit is cooling off the room.

Your Carrier unit is designed to be highly efficient in energy savings. Follow the above recommendations for even greater efficiency.



ELECTRIC SHOCK HAZARD

To avoid the possibility of personal injury, unplug power to unit before installing or servicing.

Please note: Your unit is designed to evaporate condensation under normal conditions. However, under extreme humidity conditions, excess condensation may cause basepan to overflow to the outside. Unit should be installed where condensation run-off cannot drip on pedestrians or neighboring properties.

If you need to redirect condensation overflow, install the enclosed external drain attachment. Drain must be installed in corner of unit casing when unit chassis is out of casing. See Installing External Drain, page 10.

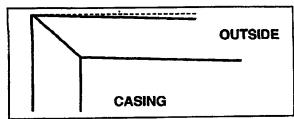


Fig. 18 - Casing Tipped to Outside

21 Installing Optional External Drain

- a. Obtain 1/2-in. (12.7 mm) (inside diameter) plastic tubing from your local hardware store in the length you need.
- b. Remove rubber plug from drain stub in chassis basepan. See Fig. 19.
- c. Mount external drain in corner of unit casing. See Fig. 20. (Drain will be positioned directly beneath the opened drain stub when chassis is installed in casing.)
- d. Install plastic tubing on drain stub.
- e. Direct tubing where condensation overflow will drain off and out of way. Be sure tubing is pitched downward slightly and fastened securely.

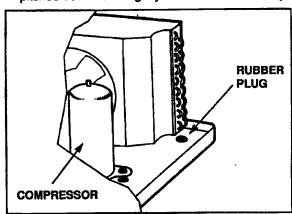


Fig. 19 - Rubber Plug Position in Basepan

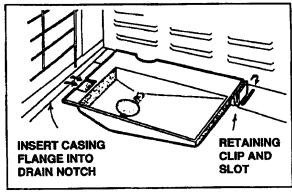


Fig. 20 - Positioning External Drain

NOTE: If unit needs to be removed in future, remember to detach and remove the external drain before removing casing from window.

22 Cut foam seal (from window mounting kit) to fit window width. Insert foam seal down between top of raised lower sash and glass pane of upper sash (see Fig. 21), making sure there is a tight seal to prevent air seepage and insect entry.

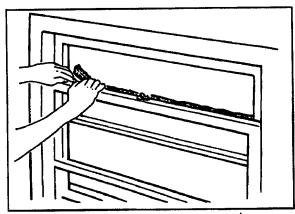


Fig. 21 - Installing Foam Seal

Using 3 short screws provided for each wing panel, insert the screws through the 3 casing screw holes (each side), and into the pre-made screw holes in sides of wing panels. Tighten all screws so that the wing panels are fastened tightly against casing sides, being careful not to overtighten screws. All screw holes should be used to prevent air seepage. See Fig. 22.

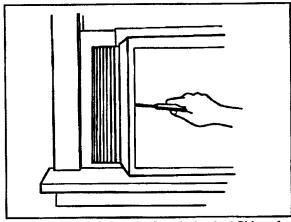


Fig. 22 – Fastening Wing Panels Against Sides of Casing

Check proper installation of unit casing, making certain that all supporting screws are installed and tightened. With one person supporting each side of the unit chassis, lift chassis and slide into unit casing. Slide in chassis all the way.

NOTE: You may have had to install your unit where the wall outlet is on the opposite side, rather than on the control box side. If so, redirect the power cord as follows, keeping in mind that the length of usable power cord will be less than its original 55 inches (1397 mm).

- a. Gently slide off control panel knobs.
- Using screw driver, gently push in tab located behind left side of control panel, and remove.
- c. Remove screw holding power cord clamp to face of control box.
- d. Re-route power cord to opposite side of unit, making sure cord is under clamp and along front bottom edge of unit.
- e. Replace power cord clamp screw in control box, control panel and control knobs.
- f. Use pliers to snap out pre-scored plastic exit tab in opposite bottom corner of grille.
- g. Re-install grille and check to be sure power cord fits snugly, and properly exits the opposite corner of the unit.

TROUBLESHOOTING GUIDE

If you have problems with your room air conditioner unit, check this convenient guide before contacting your service representative.

POSSIBLE CAUSES

SOLUTIONS

UNIT DOES NOT START

- · Unit may have become unplugged.
- Fuse may have blown.
- Circuit breaker may have been tripped.
- Unit mode dial may be set at OFF.
- Check that plug is securely in wall receptacle.
- Replace the fuse. See Note 1.
- Reset circuit breaker. See Note 1.
- Switch mode dial to an operating position.

UNIT NOT COOLING/HEATING ROOM

- Unit air discharge section is blocked.
- Temperature setting not low enough.
- Unit air filter is dirty.
- Room excessively hot when unit is started.
- Make sure that curtains, blinds or furniture are not restricting or blocking unit air flow.
- Reset to a lower temperature.
- · Remove and clean filter.
- Allow sufficient amount of time for unit to cool room.
 Use timer to start cooling early before outdoor temperature, cooking heat or gatherings of people make room hot and uncomfortable.
- Close exhaust door.

- Exhaust left open.
- WATER DRIPPING OUTSIDE

UNIT MAKING NOISES

WATER DRIPPING INSIDE

Unit not installed with proper tip to outside.

- Clicking, gurgling and whooshing noises are normal during operation of unit.
- Condensation run-off during very hot and humid weather is normal. See Note 2.
- Unit must be installed with slight tip to outside to prevent water from dripping inside. See Step 25 under Window Installation.

ICE OR FROST FORMS ON COIL

- Low outdoor temperature.
- Dirty filter.

- When outdoor temperature is approximately 55 F
 (13 C) or below, frost may form when unit is in
 coolling mode. Switch unit to FAN operation until ice
 or frost melts.
- Remove and clean filter.

UNABLE TO ACCESS FILTER

- Extra-wide sill prevents filter removal.
- Remove front grille, then remove filter.

NOTES:

- If circuit breaker is tripped or fuse is blown more than once, contact a qualified electrician.
- 2. If unit is installed where condensation

drainage will drip onto pedestrians or neighboring property, install the external drain. See instructions on pages 7 and 10.

Carrier **Room Air Conditioner Full Warranty**

ONE-YEAR WARRANTY - CARRIER warrants to the user that this product will be fee from defects of workmanship under normal use and maintenance for a period of one year from the date of original purchase. CARRIER, through an independent servicing dealer or service station, will either repair or replace a defective product (as decided solely by CARRIER) free of charge to the user. CARRIER may replace any defective part with either a new or remanufactured part, at CARRIER's sole option.

factured part, at CARRIÉR's sole option.

EXTENDED FOUR-YEAR WARRANTY ON SEALED REFRIGERATION SYSTEM ONLY - During the second through fifth years after date of original purchase, CARRIER further warrants to the user that the compressor, condenser, evaporator, and connecting tubing will be free from defects in material or workmanship under normal use and matintenance. CARRIER will either repair or replace (as decided solely by CARRIER) any defective compressor, condenser, evaporator, or connecting tubing free of charge to the user, including a recharge of refrigerant for the system if necessary. However, THIS LIMITED WARRANTY DOES NOT INCLUDE coats incurred for diagnosing, removing, installing, shipping, or transporting the product or any parts. User is responsible for these costs; however, SUCH COSTS MAY BE COVERED by a separate warranty or service agreement provided by the select or another third party, such agreement being separate and distinct from this factory warranty.

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LIMITATION OF WARRANTIES — ALL IMPLIED WARRANTIES (INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE) ARE HEREBY LIMITED IN OURATION TO THE PERIOD FOR WHICH THE APPLICABLE PRODUCT COMPONENT IS EXPRESSLY WARRANTED HEREIN. Some states do not allow limitations on how long an implied warranty lests, so the above limitations may not apply to you. THE EXPRESS WARRANTIES MADE IN THIS WARRANTY ARE EXCLUSIVE AND MAY NOT BE ALTERED, ENLARGED, OR CHANGED BY ANY DISTRIBUTOR, DEALER, OR OTHER PERSON WHATSOEVER. CARRIER WILL NOT BE RESPONSIBLE FOR ANY SPECIAL, INCIDENTAL, OR CONSEQUENTIAL PROPERTY OR COMMERCIAL DAMAGES OF ANY NATURE WHATSOEVER. Some states do not allow the exclusion of incidental or consequential damages, so the above limitation may not apply to you. All work provided for by this warranty shall be performed during normal working hours. All replacement parts, whether new or remanufactured, assume as their warranty period only the remaining time period for which the applicable component is expressly warranted herein.



CARRIER WILL NOT BE RESPONSIBLE FOR:

- Damage due to failure to perform normal maintenance as outlined in the Owner's Guide.
- Instruction on methods of control and use of air conditioning unit after initial installation.
- Damage or repairs needed as a consequence of faulty installation or application. This is the reponsibility of the installer.
- Failure to start due to voltage conditions, blown fuses, open circuit breakers, or any other damages due to the inadequacy or interruption of electrical service.
- Darnage or repairs needed as a consequence of any misapplication, abuse, unauthorized afteration, improper servicing or operation.
- Damage as a result of floods, winds, fires, tightning, accidents, corresive environments, or other conditions beyond the control of CARRIER.
- 7. Any parts not supplied or designated by CARRIER.
- CARRIER products installed outside the continental U.S.A., Alaska, Hawali, and Canada.
- Shipping damage or damage as a result of storing or transporting the

rm No. 530-048 (Rev. 7/92)

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

CARRIER CORPORATION



IF YOUR UNIT DOES NOT WORK, FOLLOW THESE STEPS IN ORDER:

- I. CHECK THE THINGS YOU CAN DO YOURSELF. These include being sure the air conditioner is plugged in firmly in an appropriate receptacle, checking the fuse or circuit breaker and ensuring its replacement or resetting, if necessary, and rereading the instruction book to ensure all controls are set properly. By doing this you can save money. Many unnecessary calls result in the serviceman doing what the owner can do for himself.
- 2. CONTACT YOUR DEALER OR THE CARRIER AUTHORIZED SERVICE CENTER. You may find this name on the product, on your invoice, or in your Homeowner's Packet.
- 3. CONTACT THE NEAREST CARRIER DISTRIBUTOR SERVING YOUR AREA. (See Telephone Yellow Pages.)
- 4. CONTACT CARRIER IF A SATISFACTORY SOLUTION IS NOT REACHED IN STEPS 2 AND 3.

Carrier Air Conditioning Consumer Relations Department P.O. Box 4808 Carrier Parkway Syracuse, New York 13221 Telephone: 1-800-CARRIER (227-7437) From Canada: (315) 432-7885

| Model/Catalog No. | |
|----------------------|-------------------------|
| Service/Discrete No | Unit Serial No. |
| Date of Installation | Installed By: |
| Name of Owner | Address of Installation |

Thermostat - Carrier

Safety Warnings



CAUTION Follow *Installation Instructions* carefully. DISCONNECT POWER TO THE HEATER -AIR CONDITIONER BEFORE REMOVING THE OLD THERMOSTAT AND INSTALLING THE NEW THERMOSTAT.





CAUTION

The 2 Alkaline "AA" batteries must be replaced at least every 12 months to assure proper operation. The thermostat will display the Low Battery code (fig. 1) on the display of the thermostat when it is time to replace the batteries. If the FIG. 1 thermostat is connected to 24v power, the Batteries may still be installed, but are not required.

When Lb is displayed the batteries must be replaced within 5 days. The manufacturer cannot be liable for improper operation of the thermostat if the batteries are not replaced within this time period.

The annual battery replacement is especially critical in locations subject to freezing temperatures. The thermostat will be unable to turn on the Heat if the batteries are exhausted.

This device complies with Part 15 of the FCC rules. Operation is subject to the following 2 conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

Troubleshooting



SYMPTOM: The slide switches on the thermostat are very difficult to move.

CAUSE: The backplate of the thermostat is deformed by being screwed tightly into a wall that is not perfectly flat.

REMEDY: Loosen the screws holding the thermostat into the wall.



SYMPTOM: The backlight on the thermostat doesn't stay on continuously, it only stays on for 10 seconds after a button press.

CAUSE: The backlight is turned OFF in Advanced Setup or a common wire is not connected.

REMEDY: To turn ON the backlight see Advanced Setup on page 16 or 17 of the Owner's Manual. To connect a common wire see pages 8-13 of this manual.

Troubleshooting



SYMPTOM: The air conditioning does not attempt to turn on.

CAUSE: The cooling setpoint is set too high or the Mode Switch is not set for Cool, or the batteries are too weak.

REMEDY: Consult the Normal Operation section of this manual to lower the cooling setpoint and to correct the Mode Switch position, or replace the batteries.



SYMPTOM: The heating does not attempt to turn on.

CAUSE: The heating setpoint is set too low or the Mode Switch is not set for Heat, or the batteries are too weak.

REMEDY: Consult the Normal Operation section in this manuals to raise the heating setpoint and to correct the Mode Switch position, or replace the batteries.

Troubleshooting



SYMPTOM: The thermostat does not run the program correctly.

<u>CAUSE:</u> The time periods are not set in chronological order.

REMEDY: Please be certain to program each time period in chronological order to ensure proper programmed operation of the thermostat. For example, if the Morning Start Time is 6:30am, then the Day Start Time MUST be programmed for any time AFTER the 6:30am Morning Start Time. Also, if the Day Start time is set for 10:30am, then the Evening Start Time MUST be programmed for any time AFTER the 10:30am Day Start Time. Finally, if the Evening Start Time is set for 5:30pm, then the Night Start Time MUST be programmed for any time AFTER the 5:30pm Night Start Time.





P/N 88-406 Rev. 2

Form No. IM-TSTAT-22 Catalog No. 63TS-TA12

Warranty

5-Year Warranty - This Product is warranted to be free from defects in material and workmanship. If it appears within five years from the date of original installation, whether or not actual use begins on that date, that the product does not meet this warranty, a new or termanufactured part, at the manufacturer's sole option, to replace any defective part will be provided without charge for the part itself; PROVIDED the defective part is returned to the distributor through a qualified servicing dealer.

THIS WARRANTY DOES NOT INCLUDE LABOR OR OTHER COSTS incurred for diagnosing, repairing, removing, installing, shipping, servicing or handling of either detective parts or replacement parts. Such costs may be covered by a separate warranty provided by the installer.

THIS WARRANTY APPLIES ONLY TO PRODUCTS IN THEIR ORIGINAL INSTALLATION LOCATION AND BECOMES VOID UPON REINSTALLATION.

LIMITATIONS OF WARRANTIES -- ALL IMPLIED WARRANTIES (INCLUDING IMPLIED WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE AND MERCHANTABILITY) ARE HEREBY LIMITED IN DURATION TO THE PERIOD FOR WHICH THE LIMITED WARRANTY IS GIVEN. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE MAY NOT APPLY TO YOU. THE EXPRESSED WARRANTIES MADE IN THIS WARRANTY ARE EXCLUSIVE AND MANY NOT BE ALTERED, ENLARGED, OR CHANGED BY ANY DISTRIBUTOR, DEALER, OR OTHER PERSON WHATSOEVER.

ALL WORK UNDER THE TERMS OF THIS WARRANTY SHALL BE PERFORMED DURING NORMAL WORKING HOURS. ALL REPLACEMENT PARTS, WHETHER NEW OR REMANUFACTURED, ASSUME AS THEIR WARRANTY PERIOD ONLY THE REMAINING TIME PERIOD OF THIS WARRANTY.

THE MANUFACTURER WILL NOT BE RESPONSIBLE FOR:

- Normal maintenance as outlined in the installation and servicing Instructions or owners manual including filter cleaning and/or replacement and lubrication.
- Damage or repairs required as a consequence of faulty installation, misapplication, abuse, improper servicing, unauthorized alteration or improper operation.
- Failure to start due to voltage conditions, blown fuses, open circuit breakers or other damages due to the inadequacy or interruption of electrical service.
- Damage as a result of floods, winds, fires, lightning, accidents, corrosive environments or other conditions beyond the control of the Manufacturer.
- Parts not supplied or designated by the Manufacturer, or damages resulting from their use.
- Manufacturer products installed outside the continental U.S.A., Alaska, Hawali, and Canada.
- Electricity or fuel costs or increases in electricity or fuel costs from any reason whatsoever including additional or unusual use of supplemental electric heat.
- ANY SPECIAL INDIRECT OR CONSEQUENTIAL PROPERTY OR COMMERCIAL DAMAGE OF ANY NATURE WHATSOEVER. Some states do not allow the exclusion of incidental or consequential damages, so the above may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which may vary form state to state.

Preventive Maintenance Schedule

Plumbing and Fixture Preventive Maintenance Schedule

As Required Preventive Maintenance Service

- Wipe faucets and tub/shower valve fixtures with a soft cloth to prevent water stain buildup. Never use abrasive cleaners. See manufacturers recommendation.
- Address dripping faucets as soon as you notice them.
 In the first few months, valve cartridges may incur debris and cause faucets to drip. Fleplace washers or cartridges as needed.
- Address running tollets as soon as you notice them. Check tollet tank interior mechanism for proper adjustments. Never use tank cleaners. See manufacturer's recommendations.
- Immediately address slow-running drains as soon as you notice them. Attempt to unclog with standard plunger.

Monthly Preventive Maintenance Service

- Check automatic washer hoses for leak. Use only new, preferably braided hoses, when connecting your automatic washer for the first time.
- Check dyer vent to be sure that it flows freely and is not clogged with lint.
- Inspect under your refrigerator for any puddles of water from your ice maker connection line.
- If your home is equipped with a whirlpool style master tub, operate it monthly to insure proper function.
- Turn on tub and shower valves and cycle them between "hot" and "cold" to insure that the pressure balancing spools remain operational and do not "freeze-up".
- Flun water at seldom used fixtures to keep "P-traps" primed and full of water.
- Inspect any pull-out hoses on kitchen faucets for wear or leakage where the hose and spray nozzle meet. This connection will work itself loose form use if not tightened.
- Inspect all exposed plumbing areas, such as under counter sections of lavatories and kitchens, around tollets, etc., for dampness or leaks. Address immediately if any concerns arise.
- Check for loose or rocking tollets and inspect the toilet base for possible dampness or leaks.
- Clean faucet aerators if the water flow appears restricted or the stream is illregular. Soak faucet aerator in vinegar to keep it lime and calcium free.
- Check shower heads for irregular spray. Clean debris, lime or calcium as necessary.
- Check all exterior hose and automatic washer bibs for signs of dampness or leaks. Address immediately if found.

Semi-Annual Preventive Maintenance Service

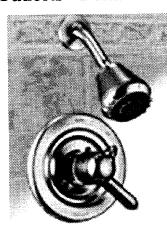
- Open and close main water shut off valve at water service and hot water heater.
- Check condensation drain lines from forced air unit to insure that they are not clogged and drain freely. Clean condensation pan as necessary.
- Inspect water heater flex connectors for dampness or leaks. Wire brush connectors clean should lime or calcium buildup occur.
- Check timer on re-circulating hot water pumps too insure that it is NOT operating the pump 24 hours per day, if equipped. See manufacturer's recommendation for operation.
- Set your water heater temperature below 130 degrees Fahrenheit. It should be in the NORMAL range of temperature setting.
- 6. Verify water pressure is set at 65 PSI or less.
- Visually Inspect grout lines where tile meets bath fixtures (tub/shower enclosures, spouts, shower arms, sinks, etc.). They should not be cracked. Fle-grout or calk as necessary.
- Turn angle stop valves on and off to insure that they do not "freeze-up" or flatten gaskets. Angle stop valves should only be hand tightened.

Annual Preventive Maintenance Service

- If your house waste system has a backwater valve, inspect and be sure it is clean and operational.
- All balcony and deck drains are to be inspected to insure they are free flowing and not clogged with debris.
- Clean the screen on water pressure regulator to insure it is free from debris.
- Check all gas appliances for possible gas leaks. If detected please contact the Gas Company.
- Mechanically snake mainline sewer system to insure system remains clear and clean.
- Drain and flush water heater tank to keep clean and free from calcium buildup or debris.

This document is to be provided to the purchaser by the seller and is to be transferable to future purchaser of property as permitted by law. This document is to remain in whole and is to be a recorded document in part of the sale.

Faucets - Delta



About Delta®

Delta Warranty

With Delta® Faucet Company, you can be sure you're getting products of the highest quality. That's why we offer a limited lifetime guarantee on almost every product line. Take a look at our warranty plan for more details.

Lifetime Faucet and Finish Limited Warranty

All parts and finishes of the Delta faucet are warranted to the original consumer purchaser to be free from defects in material and workmanship for as long as the original consumer purchaser owns their home. Delta recommends using a professional plumber for all installation and repair.

Delta will replace, FREE OF CHARGE, during the warranty period, any part or finish that proves defective in material and/or workmanship under normal installation, use and service.

Replacement parts may be obtained by calling 1-800-345-DELTA (3358) or by writing:

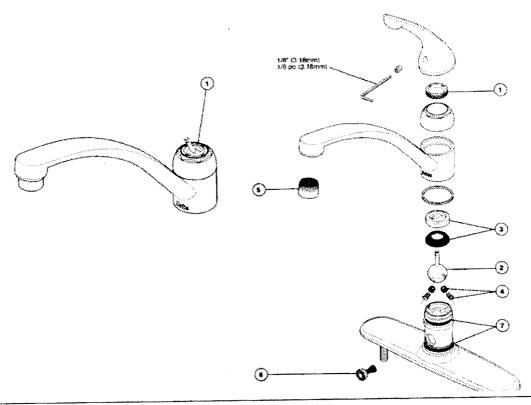
Delta Faucet Company Product Service 55 E. 111th Street Indianapolis, IN 46280 This warranty is extensive in that it covers replacement of all defective parts and even finish, but these are the only two things that are covered. LABOR CHARGES AND/OR DAMAGE INCURRED IN INSTALLATION, REPAIR, OR REPLACEMENT, AS WELL AS ANY OTHER KIND OF LOSS OR DAMAGE ARE EXCLUDED. Proof of purchase (original sales receipt) from the original consumer purchaser must be made available to Delta for all warranty claims. THIS IS THE EXCLUSIVE WARRANTY BY DELTA FAUCET COMPANY, WHICH DOES NOT MAKE ANY OTHER WARRANTY OF ANY KIND, INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY.

This warranty excludes all industrial, commercial and business usage, of faucets whose purchasers are hereby extended a five-year limited warranty from the date of purchase, with all other terms of this warranty applying except the duration of the warranty. This warranty is applicable only to Delta faucets manufactured after January 1, 1995.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. Any damages to this faucet as a result of misuse, abuse, or neglect or any use of other than genuine Delta replacement parts WILL VOID THE WARRANTY.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. It applies only to Delta faucets installed in the United States of America, Canada and Mexico.

If you have any questions or concerns regarding our warranty plan, please <u>e-mail</u> us, or call 1-800-345-DELTA (3358).



MAINTENANCE

If faucet leaks from under handle: DO NOT tighten the cap assembly. Remove handle and tighten adjusting ring (1). If leak persists—SHUT OFF WATER SUPPLIES. Replace Ball Assembly (2)—Repair Kit RP70 and Cam & Packing (3)—Repair Kit RP61. If faucet leaks from apout outlet: SHUT OFF WATER SUPPLIES. Replace Ball Assembly (2)—Repair Kit RP70 and Seats & Springs (4)—Repair Kit RP4993.

A. Remove and clean Aerator (5), or B. SHUT OFF WATER SUPPLIES. Clean Seats and Springs (4) of any debris. If spray attachment does not function properly: SHUT OFF WATER SUPPLIES. Remove Diverter Assembly (6) and clean.

If condition persists—SHUT OFF WATER SUPPLIES, Replace Diverter Assembly (6)— Repair Kit RP320.

If faucet leaks from base of spout: SHUT OFF WATER SUPPLIES. Remove spout and replace Spout O-Rings (7)—Repair Kit RP25.

Tubs & Toilets - Sterling by Kohler

| Sterling Warranty Information |
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STERLING, a division of Kohler Co., plumbing fixtures and faucets are warranted to be free of manufacturing defects within the time of the specified model's limited warranty from date of sale.

Sterling will, at its election, repair, rectify or replace a fixture when Sterling's inspection discloses any such defects occurring in normal usage within the time period of coverage stated above. Sterling is not responsible for removal or installation costs where replacement is indicated. Damages due to improper handling, installation or maintenance are not considered manufacturing defects and are not covered by this warranty. This warranty is valid for the original consumer purchaser only.

To obtain warranty service, contact Sterling either through your plumbing contractor, home center, wholesaler or dealer, or by writing Sterling, Attn: Consumer Services, 444 Highland Drive, Kohler, Wisconsin, 53044, or by calling 1-888-783-7546.

TO THE EXTENT PERMITTED BY LAW, ALL IMPLIED WARRANTIES INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PUPOSE ARE HEREBY DISCLAIMED. STERLING DISCLAIMS ANY LIABILITY FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES. Some states/provinces do not allow limitations on how long an implied warranty lasts, or the exclusion or limitation of special, incidental or consequential damages, so these limitations and exclusions may not apply to you. This warranty gives you specific legal rights. You may have other rights, which vary from state/province to state/province.

This is our exclusive written warranty.

Notes:

- 1. There may be variation in color fidelity between catalog pages and actual plumbing fixtures.
- Sterling reserves the right to make changes in product characteristics, packaging or availability at any time without notice.

FAUCETS

- Kitchen Basics™, Bath Basics™, Specialty Basics™ Five-year limited warranty
- Kitchen Classics™, Bath Classics™, Specialty Classics™ Lifetime limited warranty
- Kitchen Exclusives™, Bath Exclusives™, Specialty Exclusives™ Lifetime limited warranty

BATH AND SHOWER DOORS

- Bath Basics One-year limited warranty
- Bath Classics Three-year limited warranty
- Bath Exclusives Five-year limited warranty

LAVS AND TOILETS

- Vitreous China Toilets and Lavatories Five-year limited warranty
- Lavatories made of solid Vikrell material Ten-year limited consumer/Three-year limited commercial warranty
- Stainless Steel Lavatories Five-year limited warranty

Sterling also warrants for 5 years from the date of sale that its low consumption toilets shall be free of manufacturing defects that prevent one flush cleansing of the bowl per ASME A112.19.6 1990 performance requirements, when installed and operated per instructions packed with the product.

BATHS AND SHOWERS

Bathing Fixtures made of solid Vikrell material — Ten-year limited consumer/Three-year limited commercial warranty

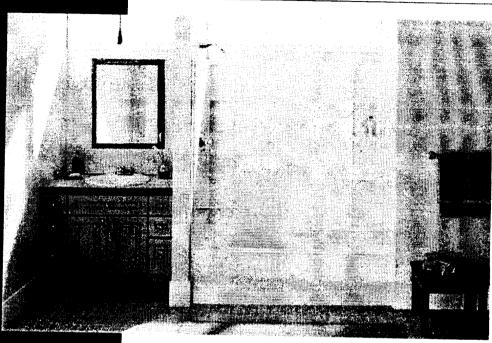
Whirlpool baths are warranted to be free of manufacturing defects for the same period except for the pump/motor assembly, which is warranted to be free of manufacturing defects for 1 year from the date of sale.

KITCHEN SINKS

- Kitchen Basics, Specialty Basics --- Five-year limited warranty
- Kitchen Classics, Specialty Classics 25-year limited warranty
- Kitchen Classics Vikrell™ Lifetime limited consumer/Three-year limited commercial warranty
- Kitchen Exclusives, Specialty Exclusives Lifetime limited warranty

CARE & CLEANING

FOR VIKRELLIM



STERMING baths showers and emillionly are constructed from self-divided material for suberior droughts and our starty. Color modern throughout. Vikinit bath, and above products also tenture a subouth, aramters appearance and are easy for one present of transport and metal.

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HOW TO CARE FOR YOUR BATHS, SHOWERS & WHIRLPOOLS MADE OF VIKRELL:

- Remove loose dirt and debris from unit, then soak base/bath in warm, soapy water to loosen soil.
- Drain unit, wash off any remaining dirt or stains with a non-abrasive multipurpose cleaner. The use of abrasive cleaning agents can result in surface dullness or discoloration of the finish. Do not use cleaning agents which have an acid base.
- Remove rust spots or mineral deposits with lemon juice or a non-abrasive cleaner.
- Remove asphalt tar, oil-based paint, ceramic adhesives and vinyl adhesives with Acetone, MEK (methyl ethyl ketone), turpentine, xylene or toluene (available at hardware stores). Saturate a clean cotton cloth with the solvent. Rub the soiled area lightly until clean. Solvents should not come in contact with plastic drains, faucet handles or be allowed to run down plastic drains, grates or fittings.
- For whirlpools, fill the unit with hot water, then add at least two teaspoons
 of automatic dishwasher detergent. Run whirlpool for 10 minutes with air
 control fully open for maximum turbulence. Drain and refill bath with cold
 water. Run the unit again to "rinse" and then drain the whirlpool completely.

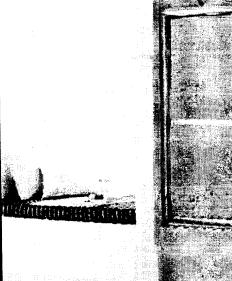
CARE TIP:

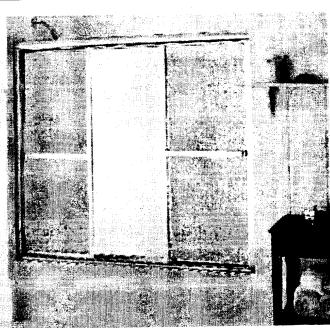
Sterling recommends the use of mild cleansers for weekly cleaning of your bath or shower made of solid Vikrell material.



CARE & CLEANING

FOR GLASS & METAL





Sterling takes special care in the production of oar bath and all over doors. He say high quality doors feature sould excist action for years of trouble feet, second to reposed habit yields, for your projection. Our bath and shown doors are assumed in a subject of stylingular and quasi-tostares to complement any bather are assumed.

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HOW TO CARE FOR YOUR BATH & SHOWER DOORS:

- Use a squeegee following each shower to eliminate water spots on the inside of the glass panels.
- For glass surfaces, use a quality glass cleaner and a clean cloth to clean the mirror surface. Carefully follow the glass cleaner manufacturer's instructions.
- Occasionally wipe the doors with a mild detergent diluted in water to keep the glass panels and anodized aluminum parts looking new.
- Never use scouring powder, pads or sharp instruments on metalwork or glass panels.
- For metal surfaces, never use cleaners containing abrasive cleansers, ammonia, bleach, acids, waxes, alcohol or solvents for cleaning as they may damage the finish. Use of harsh cleaning agents may void Sterling's warranty obligations.
- To avoid soap deposits or lime buildup in hard water areas, make a point to wipe the door dry after each use, just as you would towel dry your hands with a soft cloth.

RECOMMENDED PRODUCTS:

- 409 Glass and Surface Cleaner
- Glass Plus
- Windex

CARE TIP:

Keep shower doors ajar and enclosures open so that air can circulate to reduce mildew growth.



Kitchen Sinks - Kohler

Thank You For Choosing Kohler Company

Thank you for choosing the Bold Look of Kohler. Kohler craftsmanship offers you a rare combination of proven performance and graceful sophistication that will satisfy you for years to come. The dependability and beauty of your Kohler sink will surpass your highest expectations. We're very proud of our products here at Kohler and we know you will be too.

Please take a few minutes to study this Homeowners Guide. Pay special attention to the Care and Cleaning instructions.

All information in this manual is based upon the latest product information available at the time of publication. At Kohler, we constantly strive to improve the quality of our products. We reserve the right to make changes in product characteristics, packaging or availability at any time without notice.

Your Kohler Sink

Your Kohler sink has been made to beautifully withstand the rigors of your kitchen routine. More than simply a place to wash and prepare food, your Kohler sink will bring style and character to your kitchen. This sink is made of the highest quality materials to ensure long-lasting beauty and durability.

Care and Cleaning

Stainless Steel

Rinse your stainless steel sink thoroughly after each use, and use a dabbing action to dry with a clean, soft cloth. Clean stainless steel once a week.

Always apply stainless steel cleaner/polish with a nonabrasive cloth or sponge, working with, not across the grain. Do not use steel wool, wire brushes or abrasive pads to clean your sink.

If you use cleaners containing chlorides, be sure to rinse the surface immediately after you clean it to avoid corrosion. **Do not** allow cleaners to remain in contact with the sink surface for long periods of time.

Kohler kitchen sink accessories, including bottom basin racks, wire rinse baskets, cutting boards and colanders will help protect the surface of your sink. Call 1-800-4-KOHLER or visit KOHLER.com for model numbers, or go to a Kohler registered showroom to purchase accessories.

Care and Cleaning (cont.)

If the surface becomes excessively dirty, consider using baking soda, or a general purpose cleaner such as: Top Job with Ammonia, Spic and Span Liquid; Fantastik $_{\oplus}$ All Purpose, Formula 409_{\oplus} All Purpose, or Lysol $_{\oplus}$ Anti-Bacterial Kitchen Cleaner $_{\mod}$.

To clean stainless steel colored finishes, rinse the surface thoroughly after each use, and use a dabbing action to dry with a clean, soft cloth. Do not use an abrasive or rubbing action, as that may scratch or dull the finish. If your stainless steel colored finish becomes excessively dirty, consider cleaning with Dow Scrubbing Bubbles_® Liquid or Bleach Free Soft Scrub_®. Never use cleaners containing abrasive cleansers, ammonia, acids, waxes, alcohol, or solvents on this surface, as they may damage the finish.

Clean your Kohler faucet and strainer according to the Care and Cleaning instructions in your faucet/drain Homeowners Guide.

Artist Editions

Rinse and wipe your Artist Edition sink after each use to prevent soap build-up. Gold and platinum used on decorative products is like fine jewelry. Use only warm water to clean these finishes.

Do not use bristle brushes or abrasive sponges to clean your Artist Edition sink, as they will scratch the surface. Never use abrasive cleaners. Do not allow cleaners to sit or soak on the surface of your sink.

If the surface becomes excessively dirty, consider using Glass Plus $_{\Phi}$ or a liquid dish soap with water.

Clean your Kohler faucet and drain according to the Care and Cleaning instructions in your faucet/drain Homeowners Guide.

One-Year Limited Warranty — USA and Canada

KOHLER® plumbing fixtures, faucets and fittings are warranted to be free of defects in material and workmanship for one year from date of installation.

Kohler Co. will, at its election, repair, replace or make appropriate adjustment where Kohler Co. inspection discloses any such defects occurring in normal usage within one year after installation. Kohler Co. is not responsible for removal or installation costs.

To obtain warranty service, contact Kohler Co. either through your Dealer, Plumbing Contractor, Home Center or E-tailer, or by writing

One-Year Limited Warranty — USA and Canada (cont.)

Kohler Co., Attn.: Customer Service Department, 444 Highland Drive, Kohler, WI 53044, USA, or by calling 1-800-4-KOHLER from within the USA, 1-800-964-5590 from within Canada and 001-877-680-1310 from within Mexico.

Implied warranties including that of merchantability and fitness for a particular purpose are expressly limited in duration to the duration of this warranty, Kohler Co. disclaims any liability for special, incidental or consequential damages. Some states/provinces do not allow limitations on how long an implied warranty lasts, or the exclusion or limitation of special, incidental or consequential damages so these limitations and exclusions may not apply to you. This warranty gives you specific legal rights. You may also have other rights which vary from state/province to state/province.

This is our exclusive written warranty.

Notes:

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- 2. Kohler Co. reserves the right to make changes in product characteristics, packaging or availability at any time with out notice.

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One-Year Warranty — Mexico

KOHLER CO.

It is recommended that at the time of purchase, you verify that all accessories and components are complete in this package.

This Kohler product is warranted to be free of defects in material and workmanship for one (1) year from the date of purchase as shown on the invoice or receipt.

- 1. Kohler Co. will only service its commercialized products through its authorized distributors.
- 2. To obtain warranty service, please present the invoice and corresponding warranty.
- 3. Through its authorized distributors, Kohler Co. promises to repair the defective product or provide a new replacement or an equivalent model (in those cases that the model has been discontinued) when the product is beyond repair, without any charge to the consumer.
- 4. The time of repair will not exceed six (6) weeks commencing on the

Lav Sinks - Kohler

ONE-YEAR LIMITED WARRANTY

KOHLER® plumbing fixtures, faucets and fittings are warranted to be free of defects in material and workmanship for one year from date of installation.

Kohler Co. will, at its election, repair, replace or make appropriate adjustment where Kohler Co. inspection discloses any such defects occurring in normal usage within one year after installation. Kohler Co. is not responsible for removal or installation costs.

To obtain warranty service, contact Kohler Co. either through your Dealer, Plumbing Contractor, Home Center or Etailer, or by writing Kohler Co., Attn: Customer Service Department, 444 Highland Drive, Kohler, WI 53044, USA, or by calling 1-800-4-KOHLER from within the USA, 1-800-964-5590 from within Canada and 001-877-680-1310 from within Mexico.

IMPLIED WARRANTIES INCLUDING THAT OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY LIMITED IN DURATION TO THE DURATION OF THIS WARRANTY. KOHLER CO. DISCLAIMS ANY LIABILITY FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES. Some states/provinces do not allow limitations on how long an implied warranty lasts, or the exclusion or limitation of special, incidental or consequential damages so these limitations and exclusions may not apply to you. This warranty gives you specific legal rights. You may also have other rights which vary from state/province to state/province.

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